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Society for Research and Knowledge Management

Message from the General Chair

It is indeed a privilege for me to welcome you to this second edition of the Multidisciplinary Research conference – MyRes 2020. Due to the coronavirus pandemic, this year's conference could not be held physically in Mauritius.

To start with, let me thank the organizing committee members of the **2020 International Conference on Multidisciplinary Research** for taking another bold initiative to organize the 2nd edition of the MyRes conference in Mauritius.

We are grateful to our two keynote speakers, **Prof. Kobus Maree (who is from South Africa)** and **Prof. Ismar Frango Silveira (who is from Brazil)** for their support to the conference. We are also thankful to the members of the International Programme Committee for the advice and guidance, the reviewers for their prompt and useful feedback and the authors for contributing high-quality articles to this conference. A rigorous double-blind peer-review process was followed for all submissions.

Our thanks also go to all the volunteers for their endless and selfless help and support during the organisation of this conference. This international event would not have been possible without the collaboration, support, trust and confidence of all of you.

For the second edition of this conference, we are pleased to inform you that this event has attracted 37 submissions from 81 authors coming from 16 different countries. These countries are: Belarus, China, Ethiopia, France, Ghana, India, Iran, Italy, Kenya, Mauritius, Philippines, South Africa, Switzerland, Thailand, United Kingdom and the United States of America.

Dear Participants, I sincerely hope that this conference will become an international platform for researchers, academics, students, innovators, and practitioners to discuss and share current research, innovations and best-practices in order to contribute to the shaping of a better society. Many topics of a multi-disciplinary nature as a response to everyday challenges faced in both the developing and developed world will be discussed during the conference.

Thank you.



Prof Rajendra Parsad Gunputh
General Chair, MyRes2020
Mauritius

Prof. Rajendra Parsad Gunpath, University of Mauritius, Mauritius



Prof. (Dr. Dr.) Rajendra Parsad Gunpath is the holder of two PhDs in Law, one in Public Law and another in Private Law. He is currently the Dean of the Faculty of Law & Management of the University of Mauritius. He is a Honorary Professor of the University of Xiangtan in China. He is the Editor-in-Chief of the Just Africa Journal (South Africa). He is also an editorial board member and reviewer for many reputable international law journals. At national level, he has been a member of the following organisations

and committees: National Coordination Committee on issues of Human Rights, Environmental and Land Use Appeal Tribunal, Council for Legal Education, Institute of Judicial and Legal Studies, Mauritius Business Law Review, Programme Accreditation for the Tertiary Education Council, International Humanitarian Law Committee, Mauritius Marine Conservation Society, etc. He received the Bhagwati Memorial Shield award from the Bharati Vidyapeeth University in 2014. He has been a Visiting Professor for the Gujarat National Law University in 2011 & 2013.

Prof. Gunpath has published several books at both national and international levels. He has more than 130 publications. He is regularly invited to deliver keynote speeches in both national and international conferences. He has been the Principal Investigator of two projects funded by the Mauritius Research Council (MRC): A Legal Information Retrieval System for Mauritius and A Question Answer for the Mauritian Judiciary.

Keynote Speakers



Prof. Kobus Maree (DEd (Career Counselling), PhD (Learning Facilitation in Mathematics) and DPhil (Psychology)) is a full Professor in the Department of Educational Psychology at the University of Pretoria. His main research interests are facilitating sustainable decent work for all, counselling for self- and career construction, life design counselling, emotional-social intelligence, social responsibility, and learning facilitation in mathematics. Past editor of a number of scholarly journals, for instance, the South African Journal of Psychology, he is the

current editor of the African Journal of Career Development and the regional editor for Southern Africa: Early Child Development and Care. Kobus is the sole African representative on the following core scientific (UNESCO) committees: a. UNESCO Chair on Lifelong Guidance and Counseling, and b. the UNESCO University Network and Twinning (UNITWIN) Chair. In addition, he was elected as a member of the Board of Directors of the International Association of Applied Psychology (IAAP) Division 16) in 2018. Moreover, he serves as registrar of the South African Career Development Association, and he accepted appointments as a Research Fellow at the University of the Free State and as Professor Extraordinaire at the University of Stellenbosch and the University of Southern Queensland.

The full profile of Prof. Maree can be found at <http://www.kobusmaree.org/>.

Title: The Merits of an Integrative, Qualitative+Quantitative Approach to Career Counselling During and After the COVID-19 Pandemic

This presentation provides context for innovating counselling for self- and career construction. It will explicate the theory underlying an innovative, integrative qualitative+quantitative approach to career counselling. Three key ideas will recur throughout the presentation. First, the idea that career counselling professionals should not dispense 'advice' to people. Instead, they should enable their clients to advise themselves. Second, the imperative to listen for instead of to their clients' stories to help them choose and construct their careers and themselves, to become adaptable and employable, to shape their career-life identities, to design purposeful and hopeful lives, and to make meaningful social contributions. Third, the idea of enabling people to connect what they know about themselves consciously with what they are aware of subconsciously. The talk confronts some of the main challenges that Work 4.0 poses for the workplace, and also the challenges associated with the COVID-19 pandemic. Ultimately, it endeavours to promote career counsellors' ability to help people not only survive, but rather thrive and flourish at a time when many speculate that work itself is at risk, occupational contexts no longer 'hold' workers in the way they used to, and the coronavirus pandemic is fundamentally negatively influencing and disrupting the workplace.



Prof. Ismar Frango Silveira holds a BSc in Mathematics-Informatics, MSc in Computer Science and PhD in Electrical Engineering. He is currently professor and researcher at the Mackenzie Presbyterian University and Cruzeiro do Sul University, both in São Paulo, Brazil. He is a member of the LACLO community, HCI-Collab and VG-Collab research networks. His research interests include Computers in Education, Distance Learning, Digital Games, Computational Thinking, Knowledge Representation and Visualization, among others.

Title: Education in a Post-pandemic World: Challenges and Perspectives

The current COVID-19 pandemic has brought an unprecedented set of challenges and new situations for the whole mankind. In education, a specially sensible field of actuation given its idiosyncrasies, new perspectives are meant to be prospected. From the complete stop of activities to emergency remote classes, maybe the shift to a brand new hybrid scenario could be the answer to many questions that are being faced by educators and students all around the world. This talk will discuss some future alternatives and potential impacts of changes in the way we teach and learn nowadays.

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The Spread of Conditional Cash Transfer (CCT) for Tertiary Education in the Philippines: A Bass Diffusion Model

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Abstract

This study predicts the spread of the new government program to be availed by out of school youths whose households are beneficiaries of the Pantawid Pamilyang Pilipino Program (4Ps) using the Bass Diffusion Model. The model predicts the time and magnitude of newly released products and services. The diffusion of innovations (DoI) paradigm is a way of studying the spread of a new product and services that will be adopted over time by the first adapters, then subsequent imitators and adapters that could be accommodated within the program. This model is applied to the spread of the information of the government Tertiary Education Subsidy program on the Conditional Cash Transfer (CCT) among the Filipino youth with a target of spreading the information to out of school youths. The cash transfer allows a beneficiary to enroll in tertiary education with allowance and free tuition fees. The enrolment for the first semester for five years (CY 2014-2018) was obtained from the quarterly reports of the Department of Social Welfare and Development (DSWD) and was applied in the Bass forecasting spreadsheet. Cumulative diffusion and saturation point were categorically determined by the CCT beneficiaries from the initial adapters, imitators, and the potential imitators. Findings revealed that there was a slow diffusion at the early stage of CCT beneficiaries in tertiary education. However, the forecast revealed that almost one million of the beneficiaries could benefit from the program after 30 years. It will take four years for students to finish their higher education degree before they can be considered part of the working force. Significantly, short-term course offerings that are skill-based may be offered to students to acquire knowledge, expertise in the tools, equipment, or technology and materials used and interactions they need to get a job thus, earning wages to help the family earn a living.

Keywords: Bass Diffusion Model, Conditional Cash Transfer (CCT), Tertiary Education

1. Introduction

In 2013, Functional Literacy, Education, and Mass Media Survey (FLEMMS) survey, one in every ten or about 4 million Filipino children and youth was out-of-school. Generally, there is a higher portion of youth who are out-of-school compared to the children in school. In terms of gender, females emerge higher number in out-of-school youth and youths (Functional Literacy, Education, and Mass Media Survey (FLEMMS), 2013, para. 1).

As FLEMMS described, out-of-school youth are persons aged 15 to 24 years who are not going to school, not able to finish a degree, and do not earn a living. The main reason an out-of-school wasn't able to pursue tertiary education because of financial constraints (FLEMMS, 2013, para. 2).

In the Philippines, Filipinos strongly believe that education is vital and can be handed from generation to generation. Education is a prevailing tool of development and one of the reliable apparatus for reducing poverty as it enhances the earning potential of individuals (World Bank, 2013, para. 1). Several studies reviewed the empirical evidence that university education significantly reduces the incidence of absolute poverty as mentioned by Chaudhry et al (2009). To address the issue of out-of-school youth, the Philippine government initiated the conditional cash transfer (CCT) through program Pantawid Pamilyang Pilipino Program, or 4Ps, that provides conditional cash grants to the poorest of the poor. The program aims to breakdown the cry of the poorest of the poor to have children aged 0-18 healthy and in school so that they will have a bright future. As cited by Garcia & Hill (2016) Conditional Cash Transfers (CCT) is one of the social assistance programs in education by the government that operates more than twice the number in 2008 (World Bank, 2014, p. 16).

The use of cash transfers had been gradually adopted to reduce poverty in low-income and middle-income countries (Barrientos, 2013). In Turkey, the CCT had removed educational barriers among the refugees by providing them bi-monthly cash assistance to the refugees. The refugee families received financial support and their children can regularly go to school (Yilmaz Sener, 2016). In Macedonia, Macedonian high school students had increased its high school population through the CCT. The amount of CCT varies on the number of households within the family but it ranges from 40 USD to 98 USD (Armand & Carneiro, 2018).

The CCT Program in the Philippines is patterned from Columbia CCT which greatly helps most of the low-income population. Since the start of the CCT, malnutrition has been reduced, there is an increase in school attendance especially the out-of-youth, and health is improved.

Poverty is a worldwide issue. According to Chaudhry and Okamura (2012), the multi-faces of poverty are manifested in education and health outcomes. The scenario is that school children's completion rates are very low because most school children belong to the lowest income line. According to World Bank (2018), 55

percent of the world population can averagely provide their daily needs while 45 percent belong to the poorest of the poor. More so, there is a huge number in under-five years old mortality rate (National Demographic and Health Survey, 2008) and more than quadrupled in the number of acquiring wealth among the Filipinos (National Demographic and Health Survey, 2013).

The primary goal of the CCT program is to eradicate extreme poverty in the Philippines by investing in the health and education sector. In 2014, the government enhanced the CCT and allotted a huge amount for the poor to access tertiary education through the Tertiary Education subsidy. A CCT beneficiary, who enrolls in tertiary education, enjoys the allowance of Php 3,500 per month, free tuition, and miscellaneous expenses. Since its inception, it is assumed that there would be more enrollees in undergraduate education.

Hence this study investigated the trend of undergraduate enrolment of Conditional Cash Transfer (CCT) beneficiaries for the past five years (2014-2018) in Philippine schools and how the information about the CCT diffused applying the Bass Diffusion Model. The diffusion model is a valuable insight into the outcome of the tertiary education subsidy program.

2. Conceptual Framework

The Bass Diffusion Model, developed by Frank M. Bass (1969), predicts the time and magnitude of newly released products or services. The diffusion of innovations (DoI) paradigm is a way of studying the spread of a new product in the marketplace and whether the product will be adopted over time. In the 1960s, the mathematical model called Bass diffusion is used to study new product adoption on the market. There are three basic elements of a diffusion process namely the presence of first adopters, then subsequent imitators and adopters that can be accommodated within the program.

The Bass Diffusion Model makes several assumptions. We classify these assumptions into three broad categories based on whether they relate to: (a) the innovation, (b) the context, or (c) modeling and estimation (Jeyaraj & Sabherwal, 2014). In this study, the innovation is the new program of the government under the Conditional Cash Transfer Program, of giving cash grants to qualified beneficiaries of the PPP to enroll in tertiary education. The cash grant is called the Tertiary Education Subsidy of Php3,500 monthly allowance and free tuition fee and miscellaneous fees. In context, the value of innovation does not change over time. Late adopters or the imitators have the same privileges as the first adopters. The modeling or estimation can be assumed when the innovation is not changed and the adopters do not quit the 4-year degree program.

In this study, Bass Diffusion Model is applied to the spread of the information of the government Tertiary Education Subsidy program on the Conditional Cash Transfer (CCT) among the youth with a target of spreading the information to out of school youth. The first beneficiaries of the program in 2014 are considered the first adapters

and the beneficiaries in the succeeding years are the imitators. The diffusion perspective was introduced into the beneficiaries for it represents the flow of information of the services offered by the government. The utilization of the Bass Diffusion Model in this study predicts the saturation of the Conditional Cash Transfer (CCT) beneficiaries in Higher Education.

3. Methodology

In estimating the parameters of the number of enrollees on CCT beneficiaries, five data points (2014-2018) using the enrolment during the first semester of each academic year. The data were obtained from the third quarter reports of the Department of Social Welfare and Development (DSWD) published on the net. The Bass model calibration concentrates on the values of p as the first adapter, q as the imitator, and m as the potential beneficiaries of CCT. The parameter p is provided by the initial adapter p_t of CCT beneficiaries enrolled in tertiary education for a duration of one academic year (2013-2014). Hence, to determine the saturation point of imitators over time, we use the Bass Diffusion Model utilizing the equation,

$$\frac{d F(t)}{dt} = [p + q F(t)][1 - F(t)]$$

where:

p = first adapters

q = imitators

$F(t)$ = those who imitate

$1 - F(t)$ = not yet adapted

The data on initial adapters were then applied in the Bass Forecasting Spreadsheet. The succeeding processes include generating cumulative diffusion graphs and Bass Graph f showing the cumulative diffusion and saturation level of the beneficiaries (imitators).

4. Results and Discussion

Baseline Data. As of September 2014, the Pantawid Pamilyang Pilipino Program has reached the 4,326,208 household members of the 144 cities and 80 municipalities in the country. Only 4,173,528 from the total households are covered by the regular Pantawid Pamilyang Pilipino Program while the rest are Modified Conditional Cash Transfer (MCCT). The MCCT beneficiaries are those who are homeless and families living in the street, which does belong in the regular CCT and IP households in the geographically isolated and disadvantaged areas (GIDA) (Department of Social Welfare and Development, 2014).

It was also during this year that the Tertiary Education subsidy in 2014, was implemented. The first beneficiaries enrolled in colleges and universities in the country reached 27,280 beneficiaries. Comparing this with the registered PPP beneficiaries, it is only about 0.6 % which suggests that the information about this tertiary education program was not well disseminated, even considering other reasons for not enrolling. Although enrolment was increasing every year, and

assuming that there is one potential tertiary student in 25 percent of the total PPP beneficiaries, the expected number of enrollees would reach 1,143,382. So, the Bass model could predict when this target enrollment can be reached.

The Enrolment Trend. Figure 1 presents the five-year enrolment of the CCT beneficiaries showing an increasing trend with the highest increase in 2018 (26.35%) and the highest decrease in 2017 (21.89%). It also shows the enrolment of CCT beneficiaries from the time of the first recorded enrolment and the cumulative enrolment for five years.

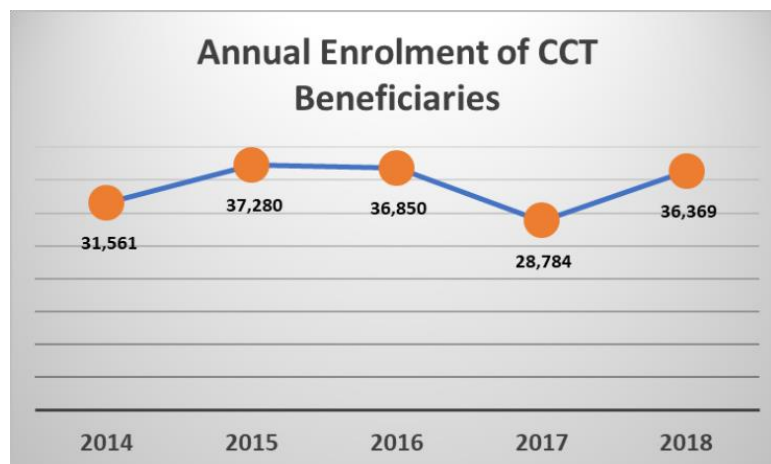


Figure 1. Annual Tertiary Education Enrolment of Conditional Cash Transfer (CCT) Beneficiaries, (2014-2018)

There is an increasing number of enrollees from the start of the conditional cash transfer program for tertiary education. Though there was a slight decrease in the number of enrollees in 2017 which may be caused by the change of the government administration more students availed of the CCT in the succeeding years. This means that as the years increase more students have accessed to tertiary education despite poverty. It is assumed that more students have heard about the program and availed of the education grant.

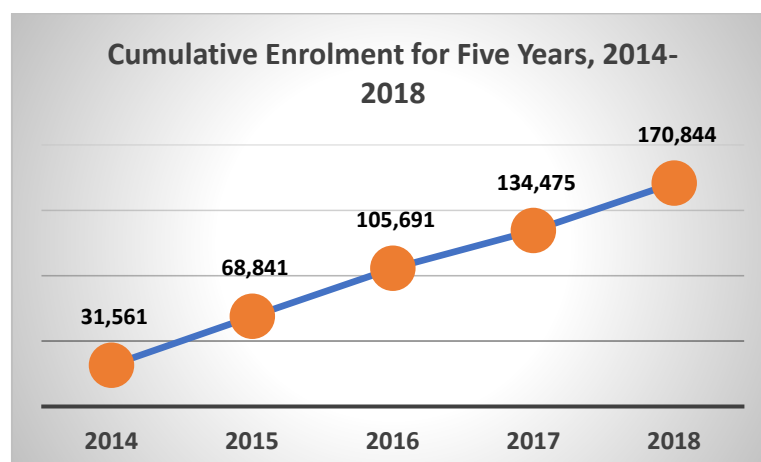


Figure 2. Cumulative Tertiary Education Enrolment of Conditional Cash Transfer (CCT) Beneficiaries, (2014-2018)

The Bass Diffusion Model. Forecasting of the diffusion for tertiary education enrolment of the beneficiaries of conditional cash transfer is shown in Figure 3.

Bass Model Data

Potential Market M	1,000,000	p	0.0032	q	0.1970		0.181205	
Year	2014	2015	2016	2017	2018	2019	2020	2021
Data	31,561	37,280	36,850	28,784	35,359	55,879	61,293	66,707
Cumulative Adoptions		68,841	105,691	134,475	169,834	225,713	287,005	353,712
	31,561							
$F(t)$	0.031561	0.068841	0.105691	0.134475	0.169834	0.225713	0.287005	0.353712
dy/dt	0.037280	0.036850	0.028784	0.035359	0.055879	0.061293	0.066707	0.072121
q	1.118122644	0.52829661	0.274194334	0.279953833	0.377453058	0.336508519	0.314811457	0.306425224
Bass Model f	0.00354	0.00782	0.01301	0.01927	0.02682	0.03588	0.04672	0.05963
Bass Model Cum f	0.00354	0.01136	0.02437	0.04364	0.07046	0.10634	0.15305	0.21269
t	1	2	3	4	5	6	7	8

Figure 3. Forecast of the tertiary education enrolment of CCT Beneficiaries

The Bass Model data in Figure 2 forecasted until 2050, but Figure 2 shows only until 2021. The study wanted to validate the forecast after 2018. It was expected that the enrolment of 2020 will greatly decrease due to the COVID pandemic. However, with the online delivery of learning in undergraduate studies, it is expected that more students would enroll in the succeeding years. Many students that are PPP beneficiaries have been informed about these CCT grants online and have also realized that there is less expense in online learning.

The Bass Model in Figure 4 depicts the S-curve of the projection of the enrolment until 2050. The enrolment is expected to increase as much as 100 % (about 1,000,000) which is only 25% of the targeted PPP beneficiaries. The projected cumulative enrolment was reached by 2028, and this could increase to about 4,000,000 by 2050.

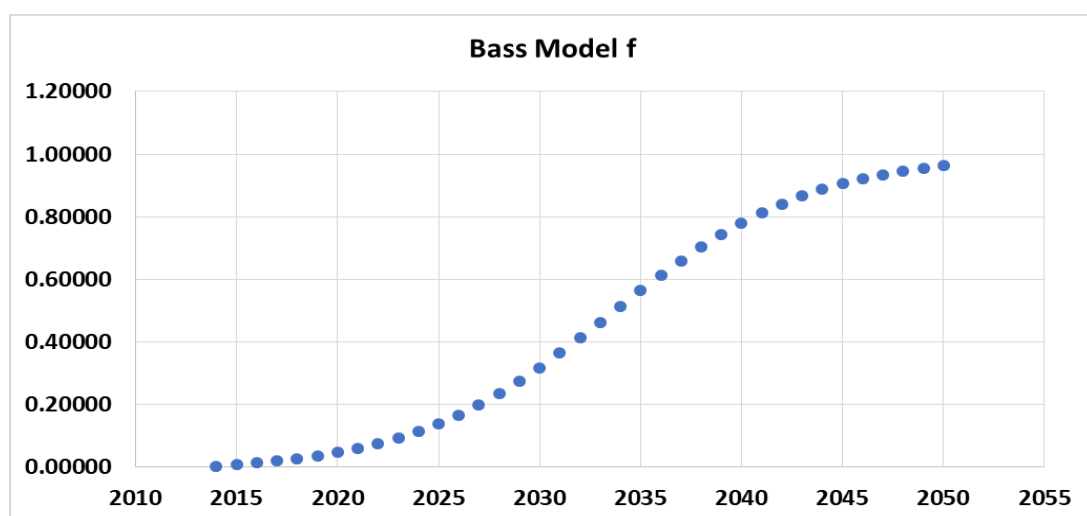


Figure 4. Bass Diffusion S-Curve for Tertiary Education Enrolment of Conditional Cash Transfer (CCT) Beneficiaries

The model shows that the probability of spreading the information by the first adopters in 2014 was slower for the first five years (until 2020) thus imitators also slowly increased. However, setting aside the COVID pandemic, an increase in imitators would have greater leaps starting in 2021. But this increase is not expected due to the health crisis not only in the Philippines but worldwide. This model is also expected to reach a plateau when imitators would already saturate. However, the model shows that this saturation point seemed to start by 2045 when the S curve seems to be flattened after this year. This is about 30 years after the inception of the CCT for students enrolled in the tertiary level. By this time, if the government program is still in place, then there is a probability that almost every PPP beneficiary is aware of this program and those who are qualified for the CCT could already apply.

The study of Horvat et al (2020) also revealed that to foster the expansion of awareness of an innovation or new product is through word-of-mouth. Their research goal is to extend the existing system dynamics Bass diffusion model to find out the process of adoption of a new food product through the perceptions of the customers or consumer. The study of Barkoczi et al (2015) aimed to find out how many consumers will likely adopt the new technology and when will they adopt it. They found out that the more persons adopt the new technology, the more the potential adopters see the increased value brought by the new product. Consumer interaction by word of mouth affects the adoption of the new technology. Adoption was relatively strong during the early stage. During this stage when adoption was growing strong, the number of innovators decreases, while the number of imitators increases. Their findings contradict this study since early adoption was very slow and made stronger growth in later years.

Cumulative diffusion is manifested in the changes in the number of beneficiaries that imitate the subsequent imitators each year. By the year 2045, Conditional Cash Transfer (CCT) beneficiaries saturate which means that in 30 years, it close to 1M (958,897) as shown in Figure 5 can avail and could benefit the program. This is one-fourth of the four million less fortunate students (4Ps beneficiaries) in the country who can be accommodated in the program. As the number of poor students who can avail increases per year there a probability that there would be more graduates in the bachelor's degree program, which leads to probable employment. Figure 6 presents the adopters only for clear visualization, how they increased since 2014. The graph clearly shows that there was a great decrease in 2017 which could be attributed to the new administration which may have affected the recruitment, processing, and budget of this program.

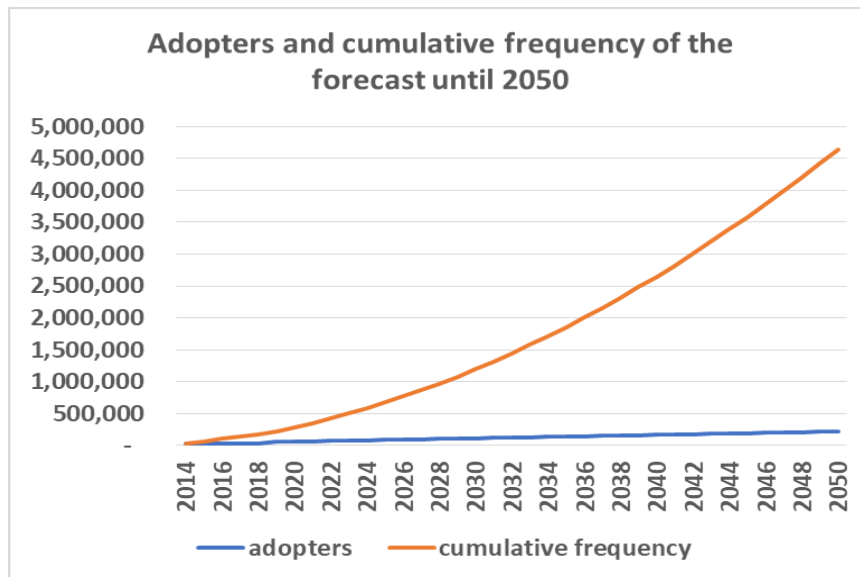


Figure 5. Adopters and Imitators of the Bass Diffusion model on the Enrolment of CCT Beneficiaries

The quarterly report of the DSWD revealed that several graduates are honor students or recipients of awards or distinctions. For Academic Year 2018-2019, there are a total of 6,414 graduates. Out of the total number of graduates, 252 graduated with honors and awards. Out of these, 17 are Magna Cum Laude, and 235 are Cum Laude (DSWD, 2020, p. 24). This implies that the CCT program of the government has great outputs and may later have an impact on the employability of graduates.

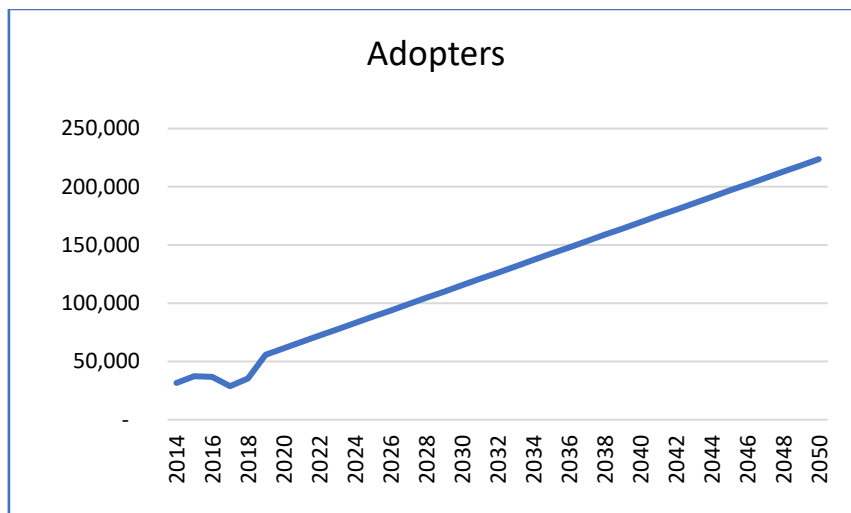


Figure 6. The adopters of the CCT Program

Tertiary education in the Philippines usually takes a four-year program before one can graduate. Even with the additional two years in senior high school, still, tertiary degree programs did not decrease the number of years to finish. This would take four years for the CCT beneficiaries to graduate and be gainfully employed. Although being a bachelor's degree holder is not a guarantee for an immediate job. More so if these graduates have not acquired the necessary skills for a job applied for.

5. Conclusion and Recommendations

The Bass diffusion model a slow base run diffusion process. The main learning outcome that diffusion was strongly affected by the word-of-mouth mechanism since beneficiaries only were informed by the first adopters. Therefore, greater attention should be to trigger existing beneficiaries to communicate their good experiences with other 4Ps beneficiaries.

Moreover, this adoption of the cash grant for tertiary education is hindered by application requirements and passing the entrance examinations in colleges and universities. Additionally, this problem is not given priority and is not tackled by any institution since reports of the Department of Social Welfare and Development (DSWD), Commission on Higher Education (CHED), and Department of Labor and Employment (DOLE) never mentioned this as an issue. More dissemination strategies could be done to diffuse the information to the maximum, through media and career talks in senior high schools who are PPP beneficiaries.

Since the CCT program is for a four-year course, and could only be availed after passing an entrance exam, those in the lower cognitive levels could never avail of such benefit. In the current post-industrial and increasing knowledge-intensive economy, there is a need for Higher Education institutions to establish training opportunities for mid-level professionals as mentioned by Altbach et al (2009). Thus, there is a need for higher education institutions to offer significant courses that respond to the needs of the industry that also spells out the needs of its graduates where skills can be developed in a short period for them to earn a living and to participate in the economic activities of the country.

Hence, it is recommended that CCT can be availed of by students who will enroll in skill-based education for them to help the family in alleviating poverty in a short period. In this way, there would be more adopters of the program, and outcomes are observed at a shorter period.

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Valuation of Desirable Affective Dispositions by Primary Teacher Education Leaders in Amhara Region, Ethiopia

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Abstract

The purpose of this study was to examine whether primary teacher education leaders in Amhara region value prospective teachers' Desirable Affective Dispositions (DADs) or not. To achieve this purpose, a mixed concurrent triangulation design was employed. Data were collected from 30 college leaders of which 27 were selected comprehensively, whereas three of them were selected purposively. Semi-structured interview and questionnaire were used to collect data from leaders from three and 27 leaders, respectively. Qualitative data were analyzed using thematic analysis, whereas quantitative data were analyzed using a one-sample t-test. Both the qualitative and quantitative data disclosed that leaders are in better a state of valuing DADs of prospective teachers for different reasons that are revolving around effectiveness, professional love, professional stay, and knowledge and skill development of prospective teachers. The study shows that the valuation of DADs by leaders is an excellent opportunity to cultivate prospective teachers' DADs in the course of their training.

Keywords: Desirable affective disposition, Valuation; leaders; Primary Teacher education

Introduction

Affective disposition refers to desirable and undesirable affective issues related to prospective teachers' professional, social, and personal lives. DADs are acceptable characteristic, quality, or demeanor like personality, value, attitude, belief, perception and expectation and even social and emotional behaviors related to teaching and learning (Klein, 2008). Valuing means prizing, esteeming, appreciating,

and acknowledging an object, thing, process ,and experience (Mohan & Subashini, 2016).

Valuation of DADs and devaluation of Undesirable Affective Dispositions (UADs) by leaders using different strategies is a necessary precondition for DADs development and UADs weakening (Doherty, 2012). Similarly, Sherman (2016) conceived the valuation of dispositions as a key component in developing DADs. Moreover, Fonseca-Chacana (2019) pointed out that “for dispositions to be nurtured, they must be valued and perceived as pertinent to a community of practice”(p.269). Hughes (2017)added that it is mandatory to value DADs and devalue UADs. In principle, valuing DADs should be a key agenda in the teacher preparation program (Sherman, 2016). Philosophers, researchers, students, and instructional leaders might value DADs for different reasons. For example, Prooyen (2013) valued affective dispositions of prospective teachers by believing that they are the very heart of the teacher education program. In the same way, Garcia (2014) valued DADs by perceiving them as "valuable assets with respect to both traditional school outcomes and the broader development of individuals"(p.5).

The leadership of the teaching arena including the teacher preparation program begins with words and actions that affectively uplift prospective teachers (Hughes, 2017). Pedro (2016) argued that school principals should have a proper perception about the importance of teaching disposition to be effective teachers. This implies that leaders of teacher education should value or appreciate DADs in their leadership endeavors. Zenkert (2013) asserted that teacher education administrators valued prospective teacher’s dispositions, but they believed that dispositions are not as important as knowledge and skill. Similarly, Taylor (2014) pointed out that as DADs are valued by leaders and affective dimensions of teaching were integrated into the mission and values of teacher training colleges by leaders. This is because designing mission statements and identifying the values of an institution are primarily the roles of leaders. Moreover, Karges-Bone and Griffin (2009) contended that leaders could serve as sources of dispositions such as compassion, fairness, curiosity, respect, and integrity when they are interacting with students by valuing these affective qualities. Nevertheless, educational institution leaders might not be found at the same footing in valuing positive teacher dispositions for several reasons. For instance, Stimpson (2010) found out that the four most valued teachers’ dispositions by educational institution leaders are treating students fairly, encouraging and motivating students, conveying enthusiasm toward teaching, and hold positive regard for others. On the other hand, Frederiksen (2010) pointed out that it is a relational disposition that is highly prized by faculty administrators.

The aforementioned claims would seem to imply that leaders might have their own contribution developing DADs by valuing the perceived importance of prospective teachers’ DADs using different valuing strategies. In the ideal context, we expect leaders to value DADs and devalue UADs in their interaction. They are expected to establish an official institutional system that values DADs.

Being cognizant of DADs importance, different Ethiopian educational national documents such as Education and Training Policy (Federal Democratic Republic Government of Ethiopia [FDRGE],1994), Education Sector Development Program-II (MOE, 2002), Teacher Education System Overhaul(MOE, 2003), Professional Standard for Ethiopian School Teachers (MOE, 2012a) and Curriculum Framework for Primary Pre-service Teacher Education (CFPPTE) (MOE,2012b) have acknowledged DADs. The commitments on the part of MOE in acknowledging prospective teachers' DADs in its different national documents call forth all primary TEC leaders in Ethiopia including the colleges in Amhara National Regional State (ANRS) which is one of the ten regions in Ethiopia to value prospective teachers' DADs. However, existing literature indicated that Ethiopian primary schools teachers are poorly motivated in their professional endeavor (MOE, 2017); primary school extension prospective teachers demonstrated different UADs (Eskeziyaw ,Molla, & Mamuye 2019); Ethiopian teachers had not been morally cultivated during their course of training (Dewo, 2011); Ethiopian teacher education program would not seem in a position to prepare teachers who could help children as early as possible towards a more spiritual, ethical, and morally sounding direction (Debele, 2014). Such underdevelopment of DADs on the part of prospective teachers might be the function of DAD devaluation culture reflected in teacher education colleges in general and leaders in particular. The existence of such reality in teacher education colleges(TECs) is a challenge as a nation and might result in a sever value crisis in the contemporary Ethiopian society which casts its evil shadow in all walks of our life in general and education system in particular. This challenging reality could be curved if leaders value DADs.

However, as far as researcher knowledge is concerned, whether leaders value DADs or not and to what extent they acknowledge the perceived importance of DADs are issues that were not addressed via research in ANRS primary TECs. This initiated the researcher to conduct the present study on these issues because addressing the issues paramount. To this end, the purposes of the study were to crosscheck whether leaders believed that DADs are important for prospective teachers or not and examine the extent of their perceived practice in valuing DADs.

Research leading questions

1. Do leaders believe that DADs are important? Why?
2. To what extent do leaders value DADs?

Research method

Sampling and sample size

The study was conducted in three of the ten primary TECs found in Amhara region. The study employed a mixed research approach with concurrent triangulation design. The total samples of the study were 30 leaders. Twenty-seven of them were selected comprehensively to fill a questionnaire, but three of them were selected purposively for interview purpose.

Data-gathering tools

A close-ended questionnaire and an interview were used to collect data. The questionnaire was a five-point Likert scale adapted from (Varol, 2011) and Zenkert (2013). It consisted of 30 items, which were classified into five subscales coined as care, intellect, character, practice of teaching, and professionalism. The scale range from 1(*strongly disagree*) to 5(*strongly agree*).

Data presentation, analysis, and interpretation

Qualitative data were presented using texts and analyzed using thematic qualitative content analysis. Zenkert (2013) DADs classification framework was used in classifying DADs. Quantitative data were analyzed using descriptive statistics (mean and standard deviation) and inferential statistics (one-sample t-test) at $P < 0.05$ level of significance using SPSS version 23.

Trustworthiness and credibility

To maximize the trustworthiness of measuring instruments, the researcher's advisors and different professionals commented on the first draft. To ensure the match between Amharic and English version of the closed-ended questionnaires for prospective teachers, backward translation was made by two English professionals. The comments forwarded by all professionals were considered in revising and finalizing the data gathering tools. After incorporating the comments, the instruments were piloted at one of the TECs found in Amhara region. Cronbach alpha reliability coefficients of the DADs valuation scaled questionnaire during the pilot study were 0.82, whereas for the final study it was 0.91. According to George and Mallery (2003), the coefficient values for the pilot and final study were good and excellent, respectively.

Result of the study

Leaders' belief about the importance of DADs

As disclosed by the qualitative data, leaders were found holding the same belief about the importance of DADs for prospective teachers' future professional, social, and personal lives by giving different justifications. Results are presented using pseudonyms for sample colleges and respondents for the sake of confidentiality.

All leaders believed that DADs are more important than knowledge and pedagogical skills. For instance, DX3 from college X pointed out that:

The importance of DADs is unquestionable because prospective teachers who have DADs like accepting the profession and having a positive attitude towards it can easily develop their pedagogical skills and subject matter knowledge. It is impossible for a prospective teacher to develop knowledge and pedagogical skill in the absence of DADs.

In the same way, DY3 from college Y, believed that desirable dispositions identified by the government or prospective teachers brought with when joining the teaching profession are "very important and even more important than subject matter knowledge and pedagogical skills in making prospective teachers more effective and

efficient in their future professional life." As he was a Civic and Ethical education teacher, he was also asked that is it your specialization that would make you to value DADs? Nevertheless, he strongly asserted that it is "my nature or personality, but not my specialization that made me highly value DADs.

Similarly, DZ3 from college Z, claimed that:

DADs are more important than knowledge and skills because it is possible to develop knowledge and pedagogical skills through additional effort. If an individual possessed DADs like love, commitment and considerateness, it will be easy to develop subject matter knowledge and pedagogical skills.

The data from leader interviewees signify that they believe DADs are more important than subject matter knowledge and pedagogical skills by giving different justifications. The reasons they gave were logical and targeted at subthemes like effectiveness, professional love, staying in the profession and gateway for knowledge and skill development of prospective teachers. The overall results suggest that leaders in the sample TECs believed that DADs are important for prospective teachers' future professional, social and personal success for different reasons.

Leaders' DADs valuing practices extent

The qualitative data revealed that leaders had their own different experiences in valuing prospective teachers' DADs. Their actual experiences are presented as follows:

Regarding the practice of valuing prospective teachers' DADs, DX3 from college X reported his experience as follow:

Personally, I had the experiences of valuing students who are demonstrating DADs. Practically, I gave money to different students when they are displaying DADs because I value affective quality more than cognitive quality. I valued an ethical student who had 2.00 GPA more than the unethical student who had 4.00 GPA. However, as a leader, I did not establish an institutional official valuation system of DADs. It is a high GPA scoring students who are officially recognized, rewarded, and promoted through public media, but ethical and morally sounding students have never been appreciated. Similarly, in our college, we did the same thing because yearly we reward those who scored better GPA during graduation by expending a lot but not those who are highly ethical and morally sounding. Therefore, as a leader my overall contribution to establishing an official institutional valuation system for DADs is nonexistent.

DY3 from college Y asserted that:

As leaders, we never establish DADs valuation system because of the national culture and absence of a policy that forced us to do so. We fail to appreciate prospective teachers who are ethical and morally sounding rather we give recognition for students who are unethical and immoral. Whatever ethical and morally sound, our students are we as leaders never acknowledge them. However, I do have a personal commitment to value DADs using different valuation strategies. For example, I gave recognition for a student who submits a necklace to the college that he got in the college campus by posting his name on notice board and I introduced him at the flag ceremony as a good role model in demonstrating honesty.

DZ3 from college Z stated that:

There is no official and institutional valuing system for DADs in our college because of lack of attention, commitment and awareness, orientation problem, and the education system we passed through. However, personally, I appreciate those students who demonstrate DADS informally, but never appreciate them ceremonially.

The overall qualitative data disclosed that all leaders had a personal commitment, but not leadership team spirit in valuing DADs by establishing an official valuation system for different reasons.

Table 2: Valuation of prospective teachers' DADs by leaders

DAD related themes	N	OM	EM	MD	SD	t-value	df	Sig. (2-tailed)
Care	27	31.82	24	7.82	4.68	8.67	26	0.000*
Character	27	12.00	9	3.00	2.47	6.32	26	0.000*
Intellect	27	27.63	21	6.63	3.69	9.33	26	0.000*
Practice of teaching	27	31.15	24	7.15	4.94	7.51	26	0.000*
Professionalism	27	14.63	12	3.63	2.47	7.64	26	0.000*
Overall	27	118.22	90	28.22	15.51	9.46	26	0.000*

Significant at $p < 0.05$

An attempt was made to check the perceived practice of leaders in valuing prospective teachers' DADs using a 30-item overall valuation scale with a five subscales using a one-sample t-test. The result revealed that the perceived DAD valuing practice observed mean of subscales care, character, intellect, practice of teaching, and professionalism (31.82, 12.00, 27.63, 31.15 & 14.63) respectively were greater than their respective expected means (24, 9, 21, 24, and 12). Moreover, the analysis revealed that the observed mean of DAD valuing perceived practice of the overall scale (118.22) was greater than the expected mean (90). The results show that the difference between the observed and expected mean scores is significant at $p < 0.05$. This implies that leaders have a better level of DAD valuing perceived practice for the overall and specific (care, character, intellect, practice of teaching, & professionalism related) DADs of prospective teachers.

Discussion of the results

Beliefs of leaders about the importance of DADs

Prospective teachers' DADs development is the function of the extent to which they are valued (Doherty, 2012; Fonseca-Chacana, 2019). Ideally, we expect leaders to value DADs. Regarding this assumption, the qualitative findings revealed that all leader participants believed that DADs are as important as knowledge and pedagogical skills in making prospective teachers effective and efficient. The valuing of DADs by leaders is in harmony with the existing literature (Hughes, 2017; Stimpson, 2010; Varol, 2011; Zenkert, 2013). For instance, Stimpson claimed that "dispositions are as important as or even more important than the subject matter and teaching skills taught in teacher education institutions" (p.22).

Participants expressed their belief about the importance of DADs by giving different justifications. To cite a few, DY3 argued that DADs are important for prospective teachers to act ethically and immorally, individuals are affective oriented, and the success story of our life is the function of affective qualities. Likewise, DZ3 claimed that DADs are important to have a constructive and productive mind.

The valuation of DADs by leaders implies that they have similar and deeper perception about the significance of DADs for prospective teachers to be effective and efficient in their future professional, social, and personal lives. It also indicates they have better awareness about DADs because it is natural that you never value something that you did not know. Besides, the rationales given by participants for their belief about the importance of DADs have different implications. For example, the justifications given by DY3 seem to imply that the process of creating ethical and morally sound citizens is the function of cultivating prospective teachers' DADs because if prospective teachers possessed DADs, they would positively influence the affective dispositional qualities of a generation. One of the rationales forwarded by DY3 also reminds us that the professional, social, and personal success or failure story of an individual is the outcome of his/her affective dispositional status because human beings are affective in their nature. Consistent with this claim, Smith (2009) (as cited in Wilkerson, 2017) argued that "human beings are primarily affective beings before they are cognitive beings"(P.36). Likewise, the rationale given by DZ3 reminds us that TECs, which invest a lot in cultivating subject matter knowledge and pedagogical skills by neglecting DADs are colleges which produce a destructive mind but not a productive mind. The positive perception leaders hold about the importance of DADs for student teachers is an excellent opportunity to launch an affective revolution in TECs and to develop DADs by prospective teachers and weaken their UADs. Supporting this argument, Fonseca-Chacana (2019) underscored that the valuing of DADs is a mandatory precondition for their development. Leaders' perception about the worthiness of DADs for prospective teachers by might be attributed to their professional and socio-cultural background. Therefore, the professional and socio-cultural background are common denominators that enable the leaders to believe that DADs are important for prospective teachers.

Leaders' DADs valuing practice extent

Good professional leaders of teacher education are expected to appreciate prospective teachers when they demonstrate DADs. Regarding this claim, one of the leader interviewee (DX3) shared his experience as such: "personally, I gave money for different students when they are displaying DADs because I value affective quality more than cognitive quality." This qualitative finding was congruent with the one-sample t-test because the test disclosed that leaders have better level of DAD valuing perceived practice in relation to care, character, intellect, practice of teaching, and professionalism related DADs and overall DADs. This result is congruent with (Hughes, 2017; Pedro, 2016; Zenkert, 2013). This finding suggests that at a personal level, leaders have the commitment and practically value DADs informally and formally. If professionally and strategically institutionalized and

systematized, this personal commitment of leaders in giving recognition for DADs is really promising, interesting, exemplary, and fertile ground for the development of prospective teachers' DADs and weakening of UADs.

On the other hand, all leaders in their qualitative response confirmed that they are not at equal footing in their actual practice of valuing DADs and their practice is not in the form of leadership team spirit. Leader interviewees expressed the reality as such: "as a leader my overall contribution in establishing official institutional valuing system for DADs is nonexistent" (DX3); "whatever ethical and morally sounding our students are, we as leaders never acknowledged them" (DY3).

The overall finding shows that there is no leadership team spirit among leaders in valuing DADs. The result also shows that there is no official established affective quality acknowledging system at a college or department level established by leaders like that of cognitive competence. This social reality might be a great challenge in nurturing DADs in TECs. Moreover, unless DADs valuation is institutionalized and systematized, the personal commitment of leaders would not result in significant DAD development outcome. The variation of giving recognition for prospective teachers by leaders when they demonstrate DADs might be the function of their perception of reality. The results indicated that there are congruence and incongruence among some qualitative and quantitative results regarding DADs valuing practice of the three parties. The congruence confirms the credibility of the findings. On the other hand, the incongruence shows the presence of leaders, who never acknowledged the demonstration of DADs by prospective teachers.

The overall qualitative results suggest that leaders had a positive belief about the importance of DADs. In the same way, the overall quantitative result indicates that leaders have a better state of DAD valuing perceived practice. Such a state of primary teacher education leaders leads to arguing that as sources of hidden curriculum messages, they seem positively contribute to develop DADs by holding a belief that DADs are important and giving actual recognition for DADs. This signifies that the hidden curriculum experiences in TECs regarding DADs valuation are in the right position to have a positive contribution to the development of prospective teachers' DADs.

Conclusions and recommendations

The qualitative and quantitative findings of this study lead to declare that leaders are in a better position in valuing the overall DADs and specific care character, intellect, practice of teaching, and professionalism related DADs. They perceive DADs as important by forwarding different logical, acceptable, and professional reasons which are related to effectiveness, professional stay and know, professional loving and knowledge and skills development.

The appreciation of DADs by primary teacher education leaders based on their personal commitment is promising that should be further strengthened. TECs should establish an official DAD valuation system like that of the cognitive

dimension. More specifically, leaders should have a team spirit in valuing DADs. As a whole, the valuation of DADs should be cultured in TECs. Leaders should take the lion share in valuing DADs in all walks of their life in their colleges. The results also remind Ethiopian MOE and Amhara region's education bureau officials to be informed about the positive experiences of teacher education leaders in valuing DADs of prospective teachers.

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Rethinking Privilege in Teaching English in Iranian Higher Education

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Abstract. This article addresses the issue of native-speakerism in teaching English in the context of Iranian higher education and the privilege arising from it. What is already known from previous research is that native-speaker teachers are often regarded as highly skilled and qualified teachers in teaching of their mother tongue. This has often led to the marginalization of teachers who speak the language they teach as an additional language. In the case of Iran, however, there is doubt about this issue and some studies have shown that native speakers of English do not receive preferential treatment in this context as they are often perceived as replaceable and temporary. The present commentary argues against this position illustrating more subtle ways native-speaker teachers of English enjoy privilege in Iran including the so-called standard variety of English they speak. It also suggests that teaching English as an International language (TEIL) can mitigate such privilege by raising awareness towards the validity and appropriateness of different varieties of English in the world to be used as teaching models in the language classroom.

Keywords: Critical Pedagogy; Teaching English as an International Language; Higher Education, Privilege

1. Introduction: Teaching English in Iranian Higher Education

Ever since English was accepted as the most frequently used language for international communications, it has become a symbol for globalization around the world. The consequences of this for the education systems has been clear, in the sense that they are expected to enable students to speak English as this will benefit not only the students but also their nations in the long run. In other words, the rationale for the current emphasis on the development of English language skills is that English is the language of science and technology and those who do not speak it will fail to be competitive in the global job market. That is why teaching English as a foreign language (TEFL) has attracted a lot of attention in the education systems of countries in which English is not spoken as the first language. Iran is not an exception in this regard. Pretty similar to many other countries, in Iran also English

is considered essential for participation in global economy (Crystal, 2003). However, there seems to be a mismatch between what is expected and what has actually happened in Iran, as the criticism is often heard that Iranian university graduates do not acquire the sufficient English proficiency to meet the needs of the business sector (Aspinall, 2006).

This dissatisfaction with the English proficiency of the Iranian youth triggered a change in the course of studies by the Iran Ministry of Education, Sport, Science and Technology (MEXT) in 2003. The last revisions in 2003, also known as the Action Plan, puts an emphasis on the development of spoken communication skills in students through increasing secondary school teachers' communicative and pedagogic skills as well as boosting students' motivation and offering alternative methods of assessment for the English component in university entrance examinations (MEXT, 2003, in Nagatomo, 2012). The extent to which such new concerns of MEXT have been successfully translated to the reality of language teaching in Iran is a legitimate question; however, another question to ask is why the ministry has remained indifferent to how English is taught at universities in Iran. Nagatomo (2012) argues that except demanding a change in university entrance exams and an increase in the number of university classes to be taught in English, the Action Plan does not address English education at universities. It makes no mention of the need to increase university teachers' communication and pedagogic skills and nor does it mention the preferred methodology and desired outcome of English education at universities.

The Action Plan, some may argue, is not by definition supposed to address tertiary education. This argument is of course fair enough, as the section in charge of the plan is primarily concerned with secondary education in Iran. Nevertheless, it is still a legitimate question to ask MEXT why they have not had similar concerns for post-secondary English education. The failure to instigate reform in English education in the tertiary level may partly explain the current dissatisfaction with the proficiency level of the Iranian graduates. The failure becomes even more imminent after the introduction of the concept of "global jinzai" (global human resource) into the discourse of human resource development in tertiary education. The proposed definition for global jinzai introduces a range of competencies expected to be developed in graduates, one of the components of which is the development of foreign language (usually English) communication skills. According to the objectives stated for this particular component, students are expected to become proficient in English communication while still being able to appreciate the Iranian culture and its values. The burden of realizing these objectives is at least in part on the shoulders of English teachers in universities. In the absence of systematic pre-service and in-service teacher-training programs in tertiary level, however, how have universities coped with the twofold goal of making their students fluent in English while assuring that they deeply understand and appreciate Iranian cultural values? One way to address this issue has been prioritizing Iranian English teachers over native speakers of English, or the so-called Iranization of English teaching (Hashimoto, 2000). What Iranization of English has involved is the tendency of many higher education institutions to employ Iranian teachers who teach the language the Iranian

way instead of using approaches such as communicative language teaching, which is believed to be a Western approach and even a colonizing force (Phan Le Ha, 2008). Now, how can such a tendency explain *privilege* in language teaching in Iran?

Such a policy, one may argue, does not promote native-speakerism as it does not privilege native speaker teachers of English in Iran. Holliday (2005) defined native-speakerism as an ideology in the language teaching profession “characterized by the belief that ‘native-speaker’ teachers represent a ‘Western culture’ from which spring the ideals both of the English language and of English language teaching (ELT) methodology.” Considering the aforementioned idea of Iranization of language teaching, it looks like native-speakerism is not relevant in the Iranian context. Such an argument is also consistent with what some studies have had to offer. Stewart (2005), for instance, believes that such a view has led to the deprofessionalization of native-speaker English teachers who are often regarded as temporary and replaceable (Nagatomo, 2012). As a result, native-speaker teachers have been reported to face discrimination in hiring practices and are offered short-term and non-renewable contracts (Hayes, 2011). In the present reflection paper, I do not intend to negate such arguments. However, in what follows I will argue that there are more subtle practices in the field of language teaching in Iran, and literally anywhere else, that may privilege certain speakers of English and marginalize others as language teachers. I will build my argument on the fact that although there are many varieties of English (native and non-native) spoken in the world, conventional ELT practices do not consider them all equally valid, and hence privilege speakers of certain varieties of English and not others. The selection of the variety of English to be used as model for learners in textbooks, audiovisual materials or by teachers is after all an ideological choice.

2. The ideological choice

Teaching English as a foreign language in the age of globalization has to reflect the new definitions for what it takes to be able to communicate internationally. Not a long time ago it was an unquestionable fact that the purpose of ELT has to be enabling learners to speak and use English like native English speakers (NESs) do for the “obvious” reason that this gave the learners the ability to communicate with NESs with ease (McKay, 2002). ELT, thus, traditionally kept introducing American and British varieties of English as the “standard” varieties which have to be learned by those hoping to learn English and communicate in it. The inherent flaw in this argument, however, was the assumption that all individuals who learn English as a foreign or a second language are doing so in order to communicate with NESs. In other words, what this viewpoint missed was that in a world that is constantly becoming globalized, the vast majority of such learners may need to speak English to communicate with other non-native English speakers (NNESs) rather than NESs (Kirkpatrick, 2006). This very issue, along with findings of recent studies regarding the changing status of the English language has raised a lot of criticism against the traditional approaches to ELT (Matsuda, 2006; McKay, 2012; Marlina, 2014).

Moreover, and besides the abovementioned practical concerns, traditional ELT approaches have also raised ideological and political concerns. As learners are

constantly exposed to certain varieties of English (mainly American and British), they end up believing in the supremacy of those varieties over the others (Kirkpatrick, 2006). Along the same lines, there are scholars who believe that the traditional approaches to ELT have promulgated a form of linguistic imperialism (Phillipson, 2009) through which western powers have maintained their colonial positions even in the present time. The recognition of new varieties of English as equally valid ones has been a reaction to traditional ELT in this regard. As Saraceni (2015, p. 187) concludes such recognition has created the belief among language teaching scholars that

Learning English need not to be seen as a strenuous journey whose ultimate destination is the achievement of 'native-like' status or a linguistic 'visa' into a special 'inner circle'. Learning English means, above all, making it easier to take part, actively and critically, in the practices and discourses that (re-)present, (re-)construct and (re-)shape the global and local worlds we live in.

In response to the criticism levied against traditional ELT, other approaches have been emerging in the field that are more critical by nature and more sensitive to the varieties of English spoken in the world. Such approaches include World Englishes (WE), English as a lingua France (ELF), and English as an International Language (EIL). Although these three approaches have important differences, they are similar in being anti-normative (Kubota, 2012) approaches, challenging the assumption that native-speaker varieties of English are the only valid ones. For the sake of space, I will refrain from discussing all of these approaches here and limit my discussion to EIL, arguing later why I think it can serve as a measure to defy privilege.

If the goal of learning English is no longer the achievement of native-like status, then what is it? The proponents of EIL argue that as in a global world there is a much higher possibility for NNEs to communicate with other NNEs in English, language teaching has to embrace the diversity of the Englishes used in the four corners of the world with an emphasis on equipping language learners with the skills to negotiate for meaning with other speakers of English who come from different linguistic and cultural backgrounds. Those approaches to language teaching that emphasize an acceptance of different varieties of English thus cry for providing students with more exposure to the diversity of the Englishes spoken around the world (Rose & Montakantiwong, 2018). One of these approaches is teaching English as an International Language that underlines the value of multilingualism vying for a fresh outlook that embraces mutual intelligibility as the ultimate goal in communication instead of native-like competence as defined by the so-called native-speaker norms (McKay, 2012). The emphasis of EIL on accepting different varieties of English and considering them as equally valid leads to giving voice to speakers of those varieties which were once considered as deviating from and inferior to native-speaker norms, it is hence a critical pedagogical approach to teaching and learning the English language (Pennycook, 2017). It strives to give voice to not only the speakers of such varieties of English, but also to the teachers who teach English but do not have the privilege of being a NES.

Sharifian (2009) conceptualizes EIL as a paradigm for thinking as well as research and practice in language teaching. Such a paradigm can serve as an analytical tool for educators and researchers to critically revisit the way they conceptualize English and the way they teach English particularly with reference to the way its use has expanded globally in recent years (Marlina, 2013). EIL is therefore primarily concerned with the way English is used in international settings and by speakers coming from diverse linguistic and cultural backgrounds. One important issue to bear in mind here is that EIL is not a single variety of English. It is rather a framework that considers English “with its pluralized forms [...] a language of international and therefore intercultural communication” (Sharifian, 2009, p. 2). It also underlines the importance of linguistic negotiation for achieving mutual intelligibility by speakers of English who bring with themselves many different varieties of the language into the interaction. It is against this backdrop that EIL does not prioritize native-speaker teachers of English over other teachers because of the variety of English they speak.

3. How English is taught in the EIL approach

The recognition of the fact that English is being used in international settings now in a way that features important differences with the way it is used as the first language of certain nations has also had implications for how it should be taught. The increased interest in the EIL framework, for instance, has led to the development of EIL-based programs and curricula for language teaching, which often stand opposite to conventional ELT programs in several ways. The logic behind this opposition is that “the teaching and learning of an international language must be based on an entirely different set of assumptions than the teaching and learning of any other second or foreign language” (McKay, 2002, p. 1). McKay and several other scholars underlined the importance of keeping EIL education separate from second or foreign language education, as they contended that while in EIL the ultimate goal is preparing learners for interaction in a global context, in foreign and second language teaching the goal is to enable learners to use English the way NESs do. An interest in teaching EIL was therefore an implicit critique of the relevance of the mono-model approach (Kachru, 1986) and the native speaker model (Kirkpatrick, 2006) of ELT. What followed this critique was a wave of research in different aspects of teaching EIL such as teaching methodology curriculum and materials design (Brown, 2012) and language testing.

3.1. EIL Curriculum, Syllabus and Materials

There have been extensive studies that discuss what should be included in the EIL curriculum and syllabus design. These studies provide the teachers and educators with the idea of how to implement the EIL paradigm into classrooms. Primarily, these studies recommend that EIL syllabus materials should prepare students for living in the globalized world of today. This preparation however, may not be undertaken without providing students with knowledge, awareness, appropriate attitude, and skills to use English in international and intercultural communicative contexts. EIL scholars, hence, proposed some principles and introduced an EIL “framework” as Matsuda (2012) puts it so that language educators and researchers may get more inspired and determined by that framework in the course of

designing, selecting, and developing their syllabus materials. Accordingly, some basic and main principles as Marlina (2013) states have been introduced along with the framework of EIL. Amongst them the most important ones can be mentioned as first; the students should have the opportunity to get exposed to varieties of English. Next, the syllabus materials should have a depiction and representation of a variety of multilingual speakers as well as their interactions from world Englishes. Then, images and acknowledgment of different cultural values must be added. And thereafter, the syllabus materials should contribute to teaching students specific skills to communicate across different multicultural settings.

3.2. Exposure to varieties of English

In providing students with exposure to varieties of English, it is stated in the literature of EIL studies that the students' awareness and their meta-knowledge about English should be raised so that they may understand that the variety of English they speak, know, learn and use is one of the many Englishes and not the only one. Moreover, EIL syllabus material should inform students that any variety of English spoken by their future bilingual and/or multilingual interlocutors from non-native English-speaking countries is to be considered as legitimate exactly in the same way as the English spoken by the people in other native-English speaking countries. Designing and selecting teaching materials according to what Kubota and Austin (2007) argue, reflect the discourse of what is desired to be learned or what is worthy to be regarded as correct information and knowledge to be learned. Therefore, the syllabus design and teaching materials that promote a mono-model approach assuming that there is only one variety of English may fail to prepare students to live as a global citizen in the society of today given the sociolinguistic landscape of English spread and use. Matsuda (2002) says such syllabus materials will leave students with a sensation of confusion and shock at the time they encounter different varieties of English and tend to consider them deficient rather than different.

To avoid such reactions to occur, it is believed that interventions on the side of the teachers are needed to direct learners' behavior (Seargeant, 2012). That is to say, the teachers are to select materials that include multiple varieties of English from world Englishes so that these chosen materials may dismiss the long-held belief of ethnocentrism and native-speakerism, which view NESs as the correct source of knowledge of English and therefore a perfect model for effective teaching, learning, and communication (Holliday, 2005).

3.3. Inclusion of different multilingual speakers in materials

As mentioned above, another concern for EIL syllabus materials is that they should include various multilingual speakers and the interaction among them. The dramatic change in the demographics of the English users as a result of the immense global expansion of the language calls for a thorough revision of the teaching materials regarding the portrayal of the characters who are frequently shown as the users of the language. Studies have revealed that despite the attempts to be more inclusive, there are still many English language teaching materials that mainly use characters from Britain or America and display the interaction between the so-called native and

non-native speakers. EIL scholars, then, consider the fact that most of today's communicative exchanges take place between NNEs and suggest EIL syllabus materials should include representation of English users from all varieties of English (refer to Kachru's (1986) discussion on Inner, Outer and Expanding circles) and examples of more interactions between these speakers and in their own potential varieties of English (McKay, 2012). Such representations provide a more realistic picture of the complexities of language use today and also give the learner a broader view of the category of English users other than those from Britain, America, or other NESs.

3.4. Appreciation for Different Cultural values

Concerning another feature of the EIL syllabus that is exposure to different cultural values, there is a wide range of EIL literature that agrees language and culture are interrelated (Kachru & Smith, 2008; Marlina, 2013; Sharifian, 2011). The way people use language appropriately is in fact mirroring the immediate culture to which they belong and is shaped by the cultural values and beliefs they socialize with. EIL education specialists, therefore, believe that culture has a genuine and rightful stance in language teaching as well as the material we teach with and that the study of culture should be incorporated as an essential component of English language curriculum (Harumi, 2002; Matsuda, 2012b; Tanaka, 2006). However, there is an ongoing debate about the definition of culture and how multiculturalism is being promoted due to the global expansion of English and the frequency of contact between people due to increased human mobility across the globe. EIL teaching materials, as a result, are to put emphasis on the importance of multiculturalism and broaden in learners the awareness and appreciation of diverse intercultural and sociocultural norms and values of speakers of English from different parts of the world in any communicative settings in which English is the medium of communication. Therefore, the EIL syllabus materials need to focus on cultural information on "source culture and international target culture" (Cortazzi & Jin, 1999).

The students should firstly be equipped with skills and opportunities in using English and talking about their own community and culture with people from outside their locality, and also should be taught how to present their cultural values, norms, beliefs, and practices that constitute their local culture. In addition to learning how to express their own cultural norms and values, the students should also have the opportunities to be exposed to cultures of their future interlocutors. Today's social communicative contexts are replete with diverse and often unknown interlocutors with variations in cultural behaviors (Canagarajah, 2006). So, the materials should provide learners with a great variety of cultures from both native and non-native English speaking countries (Marlina, 2013). However, it may seem almost impossible for teaching materials to include every single country and culture in the syllabus. And in response to this dispute, Matsuda (2012b) proposes that teachers need to "strategically diversify the content to include countries and regions from various parts of the world in the teaching materials" (p.177).

3.5. Skills and strategies for communication in multilingual contexts

Besides these three principles discussed in the literature on EIL syllabus materials and curriculum development, there is another principle, which, according to many researchers of the field, is the most crucial one. And that is how EIL syllabus materials can provide students with skills to communicate across and despite differences. Marlina (2013) argues that although it is very important to raise students' awareness toward different varieties of English and cultural values and beliefs of English users from the diverse lingua-franca background, yet it is not enough if the students do not know or learn how to employ specific strategies to communicate across these diversifications. Knowledge and awareness of linguistic and cultural diversity are necessary but not sufficient to deal with the potential obstacles in different communicative settings. The students, hence, according to what Brown (2012) puts, must be given some opportunities to develop know-how of what to do when facing differences. In other words, the EIL syllabus materials should equip students with the ability to negotiate for meaning and intelligibility. Higgins (2003) and Canagarajah (2006) both suggest that students must be provided with opportunities that allow them to build up some strategies and attributes such as interpersonal strategies and attitudinal resources so that they may respond to differences more effectively. This principle of EIL implores the educators to enable their students' meta-cultural competence by teaching them to understand that differences are normal and necessary and should be taken as a natural component of any international and intercultural communications (Sharifian, 2011, 2013). Attributes and abilities such as conceptual variation awareness, conceptual explication strategy, and conceptual negotiation strategy are the strategies proposed by Sharifian (2011) which he introduces as the affective ones in building up meta-cultural competence.

4. The Relevance of studying teacher identity to challenge privilege

Now that I have discussed in some depth what EIL is, it is time to clarify how following its tenets can challenge privilege in language teaching. The language classroom, by extension, is a social context with its own sociopolitical underpinnings, and the language teacher in the classroom cannot be neutral. Varghese et al. (2005, p. 22) argue that understanding teachers is a prerequisite to understanding language teaching. Therefore, understanding "the professional, cultural, political, and individual identities which [language teachers] claim or which are assigned to them" is the very first step in studying the language classroom. Language teacher identities are discursively constructed by the self as well as the discourses in the society and through the teachers' interactions with their students, pedagogy, curriculum and assessment (Glodjo, 2017).

Duff and Uchida (1997) studied language teacher identity in tertiary education in Iran and found that although their participants considered themselves teachers of the English language and not the culture, they were actually teaching culture in line with their sociocultural identification. The study found that "language teachers are very much involved in the transmission of culture, and each selection of videos, newspaper clippings, seating plans, activities, and so on has social, cultural, and educational significance" (p. 476). What is more, as teaching the elements of culture

is embedded in the teaching of the subject matter in the classroom, it positions students in a particular way either intentionally or unintentionally. The very fact that teachers' intentional or unintentional pedagogic choices and preferences can influence student positioning and possibly identity formations opens up the issue of privilege in the language classroom.

A number of scholars (Block, 2014; Peckham, 2010; Vandrick, 2014) have addressed the issue of identity and the privilege resulting with reference to Bourdieu's notion of social reproduction, which results from "the cultural and symbolic capital in a particular field and *habitus*" (Glodjo, 2017). I will discuss how Bourdieu's (1986) notion of social reproduction applies to the study of educational settings in general and then link it to the topic of this paper by analogy.

The dominant group that possesses the social and cultural capital define normality in the *habitus*. That is to say, the values, beliefs, and lifestyle of the dominant group becomes the normal in a *habitus*, and this normality is reproduced constantly by the dominant group. As it is reproduced constantly, it becomes legitimate to the extent that it can no longer be easily discarded or even criticized. Now, let us look at the social context of a classroom. The social reproduction of the values of the dominant group creates a "hidden curriculum" which shows "the tacit ways in which knowledge and behavior get constructed, outside the usual course materials and formally scheduled lessons" (McLaren, 2009, p. 75). As a result, those outside the dominant group are considered as *other* and are silenced to the extent that are expected to follow the standards of the dominant group. In other words, individuals outside the dominant group are conditioned to be subordinate to those who possess the social and cultural capital. They are conditioned to "behave in certain ways, make certain interpretations about their place in society and the way the world functions, and adjust their expectations of their future opportunities accordingly" (Sanders & Mahalingam, 2012, p. 114).

As I have discussed before, the role of English is constantly changing in today's globalized world. While not a long time ago it was considered as an unquestionable fact that learners of English have to imitate and emulate NESs in order to learn the language, recent critical approaches to language education including EIL have shown that native-like proficiency is neither a requirement nor a desired attribute for individuals who seek to communicate in English internationally. The number of NNEs who need to interact with other NNEs is currently increasing and this entails raising awareness to the English spoken by NNEs rather than narrowly focusing on how NESs use the language and see the world. This, however, is not consistent with the realities of the language classroom. Evidence for this claim can be found in the textbooks and audiovisual language learning materials published by well-known publishers as well as international tests of English such as TOEFL and IELTS. Although improvements have been made in the recent years, published language learning materials still primarily manifest the culture and lifestyle of a dominant group in Anglophone countries. Text and audiovisual supplements used in these materials almost exclusively uphold American, British and Australian varieties of English as valid, normal and standard that have to be followed by

English learners. The same is true about international tests of English. It is rare, if not impossible, for such tests to include Indian, Malaysian, South African or even Arabic varieties of English. Such varieties of English seem to have been totally neglected and left behind. However, in the real world a Iranian learner of English may need to interact with speakers of English from all these countries (and more) and hence has to be prepared for using and understanding English in such contexts. Why is this the case then?

For various historical reasons, the countries in which English is spoken as the first language hold economic, political, military and even cultural dominance in many parts of the world. This has led to a state in which they are looked up to by many nations as having high levels of social and cultural capital. As they are wealthy nations, they have been controlling media as well, and this has led to the reproduction of the status associated with them. This may explain why, despite the fact that English is an international language in the world now, it may be taken for granted that it is the native speaking countries that have the ownership of English. In a classroom, where the teacher believes that the only valid variety of the English is the one(s) spoken by its native speakers, other varieties of English are considered as deviant and degenerate. This teacher can be him/herself a native speaker or otherwise. That is to say, it is the attitude that matters rather than the nationality of the teacher. In such a classroom, learners are constantly exposed to native speaker standards of not only the language use, but also world view and lifestyle among others. They will be corrected if the English they speak does not correspond with the way language is spoken by the native speakers. What is also important to note is that although this correction may look like an innocent pedagogic practice, it cannot be politically neutral. Through such corrections “The teachers are correcting social class behavior manifested through language codes. Behind this masking lies the clear message that the social groups speaking through these ‘incorrect’ language codes are incorrect social groups” (Peckham, 2010, p. 28). One may argue that not all teachers may have such intentions when they correct their students’ use of English, but that is not the question. The teachers may not even be aware of what they are doing and how they are doing it, as they are already blinded to their own privilege by the normality attributed to the variety of English they speak or imitate. Through corrections, teachers introduce and uphold a *standard* that automatically marginalizes and silences everyone that does not live up to it. This discourse obviously operates in favor of a system that seeks to create outsiders (speakers of non-native varieties of English) that are subordinate to particular ingroups (NESs). But what is the solution? How can the language classroom be liberated from such biased classifications? One way to address this issue is to resort to the tenets of critical pedagogy.

Giroux (2009), who is believed to be the founding father of critical pedagogy alongside Freire, argues that a prerequisite to such a liberation is the presence of teachers who can critically reflect on their positionality, identity and privilege. He calls such a teacher a “transformative intellectual [...] who exercises forms of intellectual and pedagogical practice [...] arguing that schooling represents both a struggle for meaning and a struggle over power relations” (p. 439). This has clear

implications for teacher education research showing the need for training teachers who can critically reflect on the way their identity is constructed, and value differences between their students and themselves as resources rather than deficit (Glodjo, 2017).

5. A solution: EIL as critical pedagogy

Central to the idea of critical pedagogy (Freire, 1999) is transforming the conception of knowledge as apolitical and neutral in education. It aims at empowering the students by teaching them how to challenge and defy domination and dominating discourses of power in society. From a linguistic point of view, EIL shares this concern as well. It strives to give voices to speakers of non-native varieties of English. Its point of departure is the conception that all varieties of English are equally valid and English should be taught without an undue reference to how NESs use it. Also, it emphasizes the fact that not all people who wish to learn English have the intention to learn and adopt the Anglo-American culture, lifestyle and worldview. They may well have instrumental motivation to learn the language as a tool for communication with other speakers of the language around the world. Pennycook (2017) thus argues that “[n]either the version of language produced by the discourse of EIL, nor the discourse of EIL itself can be accepted as neutral, for both language and discourse always imply a politics” (p. 301). The politics EIL stands against is that of superiority and dominance of certain varieties of English and their speakers (including the teachers who speak them and teach them) over the others. Broadly defined, critical pedagogy is a desire for bringing about social change through education, and so is the case with EIL. Schools, and the language classroom by extension, therefore, cannot be regarded as a space for transmitting a neutral body of knowledge to the students or language learners. Akin to critical pedagogy that takes schools as areas for constant social, political and cultural struggle, EIL rejects the traditional approaches of language teaching that deal with the language learning process merely as a psycholinguistic one isolated from its social and cultural context.

Counting out the principles of critical pedagogy, Giroux (1998) argues that we need to oppose the notion of curriculum knowledge as sacred and impeccable and explore the many reasons why certain types of culture and knowledge are given precedence in educational settings. From an EIL perspective, for instance, the question would be why certain accents of English from particular varieties, values and cultures associated with them, and their sociolinguistic norms are considered “standard” while others are not. In such an environment, teachers need to be what he calls “transformative intellectuals.” A similar statement is made by EIL proponents (Renandya, 2012; McKay, 2012) who argue that teachers in this changing sociolinguistic landscape of English need to promote multiculturalism in the language classroom and decentralize the native-speaker norms governing language use. That is what makes an exploration of the teachers’ perceptions and classroom practice relevant and significant.

6. Conclusion

In this reflection paper I have argued that privilege may exist in teaching English at higher education institutions in subtle ways. Particularly in the case of Iran, despite research showing that native-speaker teachers of English in Iranian universities do not enjoy any privilege and are even faced with discrimination, I have argued that their privilege lies in the variety of English they speak that is, not quite coincidentally, the variety of English used in many published textbooks and international English proficiency tests. The native-speaker varieties of English showcased in language teaching materials used in Iranian higher education institutions as well as elsewhere result in the belief that the desired varieties of English to be learned by learners are those spoken by NESs. While traditional ELT approaches have by and large remained insensitive to this issue, EIL and other similar approaches have voiced their concerns for it. That is why I have argued in favor of employing EIL in higher education to teach English both to have a more realistic outlook towards the way English is used in today's globalized world and to challenge the privilege it produces for speakers of certain varieties of English.

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Impact of Replacing Supplementary Examinations with Second Opportunity Examinations in a South African University of Technology

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Abstract

Examinations are used to promote students. Promotions are in terms of moving to higher-level studies or graduations. Students who failed the main examinations were given a second chance. At this South African University of Technology (UoT), two types of second chance were given. From the beginning of the institution to 2009, the second chance examination used was called Supplementary Examination. Supplementary Examination (SE) was the examination written by students who obtained 45% to 49% in their main examination. From 2010 onwards, the institution decided to replace the SE with unconditional rewrite examination (URE). The URE-era students were granted unrestricted permission to write a second examination, even if they got zero in the main examination. The rationale was that their performance would improve. In this investigation, the main - examination marks of SE-era students were compared with those of URE-era students. What prompted the study was the question: "How does provision of second chance impact on the student's preparation of the main examination"? Does the stricter second chance conditions impact positively or negatively on the student's preparation for the main examination? The research design was quantitative. The sample used was the main examination results of 2009, the last SE year, and those of 2011, the URE second year. Data analysis indicated that the means (averages) of SE-era students were generally higher than those of URE-era students. With all things being the same, the conclusion is that if students know that they have an unrestricted chance to rewrite, they prepare less for the main examination.

Keywords: supplementary examinations, second opportunity examinations, University of Technology.

Introduction

In a certain South African University of Technology (UoT), second-chance examinations were a norm for students who failed the main examination.

Supplementary examinations (SEs) were written until 2009, then replaced by Unrestricted Rewrite Examinations (UREs) from 2010 at this UoT. There were no preconditions for UREs for students who failed their main examination. Even if you obtain 0% in the main examination, you qualified for the URE. On the other hand, the qualification for SE was a 45% - 49% mark in the main examination. There was a general feeling at this institution that to deprive a student of a right to try again if the student obtained less than 45% in the main examination amounted to limiting the potential number of students who could otherwise succeed in the URE.

The rationale was that a student could fail main examination horribly and still pass the URE. The arguments for or against the rationale centred on issues like stress management, time pressure and math anxiety associated with writing examinations. Those arguing in favour of URE mentioned issues like favourable time of writing the re-write, mentioning that the main examination was written at the time students were expected to write other subjects, while the URE was written after the completion of the normal examination period, allowing ample preparation time for the re-write. Allowing only the students who obtained 45% - 49% in the main examination to rewrite the examination, they argued, would be a disservice to those obtaining less than 45% as they could be deprived of benefitting from the favourable time of re-writing the examination. They also mentioned that there may be personal reasons for which a student could fail the main examination that may have dissipated by the time of the re-write.

Those arguing that 'failing the main examination implies potential to fail the URE pointed to issues like assistance – consulting lecturers – which was provided for before writing the main examination, but which could not be possible between the main examination and the re-write, as most lecturers mark the main examination at the time the students who feel they did not perform well start preparing for the re-write. The crux of their argument is that if students fail when helped, how can they succeed when help prospects are limited?

Research Questions

The focus of this paper is two-fold. Firstly, on how the provision of the URE influenced the student's effort in preparing for the main examination, as compared to the provision of SE. Would it not be a stress relief for the student to prepare for the URE, which comes later, instead of worrying about the burden of passing the main examination at the time of examination time-table congestion? Specifically, if a student knows that another unconditional opportunity will be available in case of failing the main examination, will this knowledge not impact on the student's desperation to succeed in the main examination? In other words, will the availability of the URE not be a distraction on the student's preparation for the main examination? If, for instance, a student does seven courses, and the student knows that access to re-write mathematics is unrestricted, will this not tempt the student to prepare for examinations of other courses at the expense of the mathematics main examination? If so, what will be the impact of lay-off (albeit short) from mathematics?

If, on the other hand, a student is aware that he/she would need to pass the main examination by at least 45% to qualify for the SE, would such a student not, as a preventative measure against the anxiety of the potential failure to meet this minimum requirement, be motivated to exert more pressure in preparing for the main examination?

The second focus of this paper is on whether URE will result in better overall performance as opposed to SE. If student main – examination preparation effort is influenced by the unconditional provision of the re-write, then the number of students succeeding at first attempt (in the main examination) may drop as opposed to when the provision was not available. The number of students succeeding in the unconditional re-write may be such that the overall pass rate may be less than, the same as, or even more than when the unconditional re-write was not provided. In other words, the provision of unconditional re-write may or may not impact on the overall pass rate. This rests on performance in the re-write.

The paper compares performance of two categories of students in the main examination, the SE-era students and the URE-era students. The research questions are described below. How do provisions URE and SE impact on preparation for the main examination? The following are the associated sub-questions:

- a) How does the main examination performance of URE students compare to the main examination performance of the SE students?
- b) How does performance in URE impact on overall performance as compared to performance in SE? This question translates into the following sub-question: What was the overall pass rate for URE students and how does it compare to the overall pass rate of the SE students?

Before answering these questions, we look at the literature survey that may have a bearing on the research questions.

Literature Survey

In the literature survey, focus will be on mathematics teaching and learning issues that may impact on the student's success in his/her summative assessment. One of issues being considered is student belief about their ability to learn.

Student belief about their ability to learn.

Belief about a student's ability to learn has the potential to impact on the student's grasp of mathematical ideas. According to Masters (2011), students believe differently about how they learn. Some view the ability to learn as 'fixed', something they cannot do anything about. Those who believe their fixed ability to learn is 'low' subscribe to a belief that no amount of effort in their studies will make difference in their performance. Those who believe their fixed ability is 'high' tend, out of complacency, to underestimate the importance of effort in their studies.

If students are aware of unconditional provision of re-write opportunities, their belief about their abilities to learn may influence their reaction. Those who view ability as fixed may not see the difference between preparing for main examination and

preparing for the unconditional re-write. They may focus on preparing for the main examination, or they may be vulnerable to possible examination time-table congestion associated with writing the main examination. In the latter case they may attend the main examination unprepared, with the knowledge that their lack of effort in preparing for the main examination will be compensated by their full focus on preparing for the unconditional re-write. In that case their knowledge about provision of unconditional re-write opportunities will cause the students not to prepare for the main examination.

On the other hand, students who are aware of supplementary re-write opportunities, may, out fear of possible failure of not meeting the minimum 45% in the main examination, be motivated to prepare suitably for the main examination as a preventative measure. In that case the provision of supplementary re-write opportunities will ensure better preparation for the main examination.

The 'low fixed' ability students, on the other hand, may, because of lack of confidence as a result of believing in their low ability to learn, prepare misgiving for the main examination and, if not successful, second - opportunity examinations (irrespective of whether it is the unconditional re-write or supplementary re-write). For them, the provision of the second opportunity will provide some hope in case of failure in the main examination.

Institutions of learning should vigilantly ensure that their educational practices do not institutionalise or communicate 'low-ability' expectations by over-emphasising excellence as a scarce resource - that excellence is meant only for a few. This can act as a source of discouragement for those who consider themselves not to be excellent. Students with high-ability expectations may also not be influenced by the rewrite provisions by focusing on the main examination. They are unlikely to consider the re-write as their mindset is already geared towards succeeding in the main examination. When they are surprised by their failure of main examination as a result of their complacent preparation for the examination, they may then prepare for the re-write. In this case the re-write provision may not impact on their preparation for the main examination.

The other factors that may impact on the re-write as an influential factor in main-examination preparation effort are barriers to effective time management. We now describe these issues.

Barriers to Effective Time Management

Time management issues do have a bearing on how provision of unconditional versus supplementary re-write conditions can impact on student preparation for the main examination. Strang (2015) conducted a survey about barriers to effective time management among college students. Among others, Strang (2015) found procrastination, distractions by friends, poor planning to be some of the barriers. Procrastination, and poor planning can distract students from full preparedness for the main examination and consequently push students to target second - opportunity

examination. In addition, they can cause stress, time pressure and anxiety in their preparation for the examination. We now focus on these factors.

Stress, time pressure, anxiety and strategic behaviour

Success in mathematical tasks can be negatively impacted by stress (Ashcraft and Kirk, 2001; Maloney and Beilock, 2012; Vukovic et al., 2013). This investigation recognises that there is time pressure associated with solving the mathematical tasks. If the frequency of solving the tasks is minimal, a problem of competency backlog can result (less practice, less competence). If the tasks are done within the framework of a confined time, like during an examination, it can impact on the student's preparedness for the examination, forcing the student to go for a re-write. The student can opt for unrestricted re-write as a way of reducing the stress level associated with solving the mathematical tasks in the main examination.

Strategic behaviour (i.e. choosing your best of available options) is utilised widely in problem solving domains, including education (Olthof et al., 2011). Strategic behaviour can relate to choosing a certain strategy to solve a mathematical task. This paper argues that strategic choice can ultimately impact on the timing of preparedness of the learner for summative assessment.

Research in mathematical domain indicates mathematics as built on a number of cognitive abilities (Passolunghi et al., 2008; Krajewski and Schneider, 2009; Geary, 2011). Extended neural network of the brain implements the cognitive abilities (Goswami and Szűcs, 2011; Fias et al., 2013; Szűcs et al., 2014). This investigation contends that the flexibility and adaptability of the strategic behaviour may be time-dependent – time having the potential to impact on the building of these mathematical cognitive abilities and their associated testing.

Different factors can impact on the switching between, adaptative selection and application of most efficient mathematical strategies. Some of these relate to personal features of the solver like mathematical expertise, attitudes and emotions toward math (Baroody and Dowker, 2003) and domain-general aspects, i.e., broader cognitive and emotional factors (Devine et al., 2012; Mammarella et al., 2015). Attitudes and/or emotions towards math, broader cognitive and emotional factors could generate pressure that can impact on the student's preparedness to be assessed summatively.

Working memory (WM) is a process, embedded among cognitive factors, that is strongly associated with successful solution of mathematical tasks (WM; for review see Raghubar et al., 2010; Bull and Lee, 2014; see also Passolunghi et al., 2008; Friso-Van Den Bos et al., 2013; Szűcs, 2016). WM has been found to predict explanations of mathematics outcomes. The number of studies investigating this predictive role has increased in recent years (Bull et al., 2008; Li and Geary, 2013; Caviola et al., 2017; Cragg and Gilmore, 2014; Szűcs et al., 2014). Inevitably, WM influences mathematics achievement differently: it helps to track relevant information (e.g., by storing and retrieving partial results) during problem-solving, as well as involvement in successfully selecting and implementing procedures (Barrouillet and Lépine, 2005;

Swanson, 2006; Wu et al., 2008). It is the contention of this paper that the keeping track of relevant information, and the successful selection and implementation of procedures are influenced by the student's confidence (or lack of it) emanating from frequency of the mathematical problem-solving activities. Ultimately the confidence impacts on the readiness or otherwise of the students to be assessed.

What this investigation further accepts is that performance in mathematics tasks is affected by psychological, social, personal and environmental factors. This also specifically applies to performance in university examinations (Rasul, Saima & Bukhsh, Qadir, 2011). Rasul, Bukhsh's (2011) study was designed to measure the factors affecting student's performance in examination at university level. It was found that psychological, physical, socio-economic and educational factors and lack of proper guidance affected performance in examination.

The paper contends that the above factors not only affect performance in the examination, but also that they may also impact on the readiness or otherwise of the students to be assessed. As mentioned earlier, students who target re-write because of not having adequately prepared for the main examination will forfeit the right to proper guidance as a result of unavailability of lecturers for consultations.

Kochhar (2000) says proper guidance is necessary to help students with problems like lack of correlation between talent and achievement, faulty study practice, and imperfect methods of learning. Studies have been done to establish how peer influence impacted on student performance. Gonzales et. al., (1996); Goethals, (2001); Hanushek et. al, (2002) found that peer influence was more impactful than family. This paper contends that negative peer influence may cause delay in student progress of solving mathematical tasks. On the other hand, Giuliadori, Lujan and DiCarlo (2006) found that peer interactions might increase student skills on solving qualitative problems.

Abdulkadir (2018) investigated factors affecting student academic performance. He found that learning techniques correlated positively with student academic performance ($r = 0.964$, $p > 0.01$), that home-related issues impacted on academic performance ($r = 0.79$, $p > 0.01$), that study habits impacted on performance ($r = 0.819$, $p > 0.01$), and that availability of physical resources correlated positively with academic performance ($r = 0.819$, $p > 0.01$).

Summarising the above, it is evident that learning technique, home related aspects, study habits and physical resource have positive relationship with academic performance. Similarly, students with good academic performance have better learning techniques, home related aspects, study habits and physical resource. This paper argues that it requires dedicated students to learn the different techniques and to develop the good study habits. Such students are most likely to be ready at the earliest time of summative assessment as opposed to those with less dedication.

Research has shown that class attendance can improve a student's performance. A study conducted by Collett et al., 2007; Stanca, 2006; Chow, 2003, conducted studies

that showed that attendance had small, but statistically significant, effect on student performance.

Marburger (2001) concluded that missing classes contributed significantly to incorrect response to questions covering the material done during the absenteeism. Moore (2006) indicated that on average, better-attending students achieved highest grades. On the other hand, Martins and Walker (2006) did not find class attendance to have any impact on performance. Park and Kerr (1990), and Schmidt (1993) supported this view. Jennjou Chen (2006), in his study "Class attendance and exam performance: A randomised experiment", found a positive correlation between the two, concluding that on average, attending lecture corresponds to a 7.66% improvement in exam performance.

Most universities have adopted a policy of barring the student from examination when the percentage of the attendance is less than 80%. At this UoT there were expectations that students could not obtain their Diploma qualifications without first having completed their work experience. Since the unit at the UoT dealing with placement of the students in different companies could not place all the students, some of the students kept on trying to look for placements by themselves when they were supposed to be focusing on their studies. They would attend interviews, sometimes succeeding in obtaining the work experience opportunity. This means losing a lot of class time. Some of the companies were too far from the institution for normal classes to be attended. This obviously impacted on the students' readiness to be assessed, and consequently on their choice of assessment.

The research questions this paper is trying to address focus on the impact of the re-writes on students' performance in main examination, as well as their impacts on the overall performance. These factors cannot be dissociated from how teaching and learning are done at this UoT. If, because of teaching style, the students consistently do not understand the lecturer, their level of readiness for the summative assessment will be different from if they consistently understood the lecturer. That is why the teaching philosophy of the institutions becomes an important factor in addressing the research questions. The teaching philosophy of the UoT under discussion is the one underpinned by the principle that knowledge cannot be passively transmitted from lecturer to the student, that the students need to be given an opportunity to actively construct their knowledge subject to socially accepted norms. A socio-constructivist approach to teaching and learning was adopted at this UoT. However, there are obstacles to the successful implementation of the approach. There is no provision for seating arrangements that can facilitate the formation of group work. Lecture rooms are characterised by non-removable chairs in fixed rows. Class sizes are quite big – averaging about 60 students per class. As a result, lecture method is used, though each lecturer is aware of the university teaching philosophy.

The UoT changed from SE to URE. It was hoped that this measure would result in improved overall performance. If it can be shown that replacing supplementary re-writes with unconditional re-writes resulted in improved overall performance in

mathematics, then the investigation will have confirmed that the replacement was a good move. If the replacement resulted in deterioration of overall performance, then it was a bad move. The significance of this study is mostly in establishing the impact of this replacement.

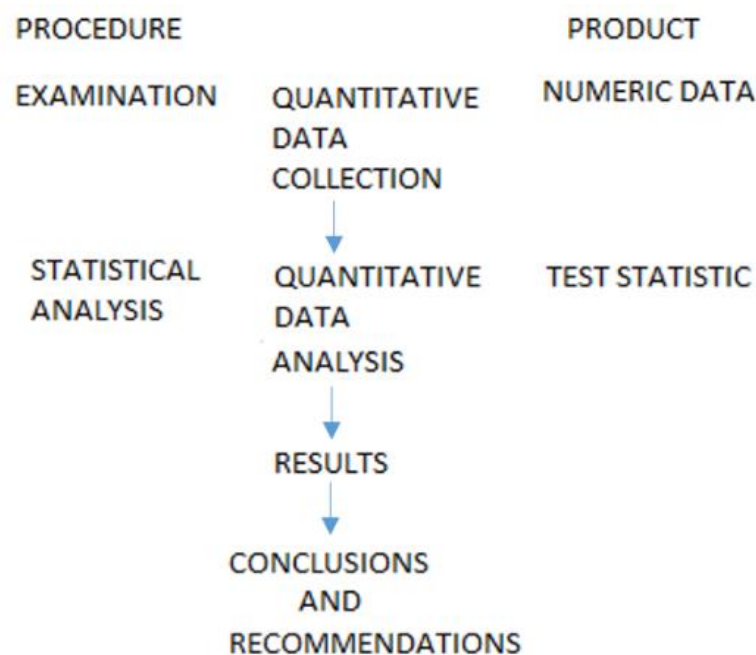
Method

Participants

The sample was a purposeful sample. The examination results of 2009, the last year of using the SE, were used and compared with those of 2011, the second year of using URE. Because the 2009 supplementary examinations were written in 2010, the author felt it better to use 2009 and 2011 results instead of 2009 and 2010 ones, for comparison purpose.

Design

The research design was quantitative. The following picture gives a summary of the design.



What the above picture briefly shows is that quantitative data (examination results) were analysed and their means (test statistics) compared. Conclusions and recommendations were then drawn from the comparison.

Material and Procedure

Data consisted of marks of both groups in the main examination. The main examination marks were targeted by this paper because of their relative objectivity as assessment tools, as compared to the composite main examination mark, since the latter has a subjective element of lecturer-influenced year mark (class tests are set by the class lecturers). Reliability is the degree to which an assessment tool produces stable and consistent results. Reliability is consistency across time (test-retest reliability), across items (internal consistency) and across researchers (inter-rater

reliability). A ruler is always reliable, as the results of ruler measurement could be replicated time after time.

Validity implies the extent to which the research instrument measures what it is intended to measure. If the results of the personality test show a shy person to be outgoing, then it is not valid. Validity is all about genuineness of the research, whereas reliability is nothing but repeatability of outcomes. A valid instrument is always reliable, but a reliable instrument is not necessarily valid. For instance, a weight-scale whose readings start at 5kg instead of 0kg may be reliable in measuring items (in the sense that measurement will be replicated for the measured item), but not valid (in the sense that weight of items will be 5kg less than the readings on the scale).

We now describe the main examination mark as an assessment tool within the framework of the above-mentioned concepts of reliability and validity. The following steps were taken to ensure the reliability and validity of the main examination, supplementary and unconditional re-writes:

- a) A study guide given to each student at the beginning of the term specifies not only the topics that will be covered during the term but also clearly defined goals and objectives of each topic to be covered. Lecturers are guided by the goals and objectives when teaching.
- b) Assessment of each topic is informed by the goals and objectives specified in the learner guide.
- c) The main examination, supplementary or unconditional re-write are set by the examiner, and then moderated either internally (mathematics 1 and 2) or externally (mathematics 3). The purposes of moderation are to ensure adherence to goals and objectives specified in the guide, adherence to the syllabus and consistent marking.
- d) The main examination is written by all students. Scripts are distributed among different lecturers for marking (numerous lecturers at this institution teach the same level mathematics, for instance, 8 lecturers may teach Mathematics 1, 10 lecturers may teach Mathematics 2 etc.), resulting in a lecturer not necessarily marking the scripts of his/her students. Student numbers rather than names are written on examination scripts, making it difficult for the marker to know whose script it is. The statistic used in the data analysis was the mean

Results

The UoT under consideration followed a semester system. By Mathematics 1 we refer to the content of mathematics that was done in one semester. Similarly for Mathematics 2 and 3. Two categories of results were compared. The first category was SE-era main examination results versus URE-era main examination results. The second category was overall SE-era pass rate versus overall URE pass rate.

Descriptive statistics

Main examination results Mathematics 1: 1st Semester 2009 versus 1st Semester 2011

Table 1 – Mathematics 1 2009-01 versus 2011-01

	2009-01 Mathematics 1 SE	2011-01 Mathematics 1 URE
Mean	46.125	43.3002681
Variance	314.7097031	270.7966935
Observations	944	373
Hypothesized Mean Difference	0	
df	731	
t Stat	2.744430828	
P(T<=t) one-tail	0.003105156	
t Critical one-tail	1.646940787	
P(T<=t) two-tail	0.006210312	
t Critical two-tail	1.963214514	

The results show a slightly better main-examination performance (mean 46.125) of the supplementary group as opposed to that of the unconditional re-write group (mean 43.3). The difference is of statistical significance ($p = 0.0062 < 0.05$). This is supported by the percentage of students who got at least 50% in the main examination as the following table shows:

Table 2 – 2009-01 SE vs 2011-01 URE results (Mathematics 1)

Class limits	2009-01 Mathematics 1 SE Main Examination Frequency	2011-01 Mathematics 1 URE Main Examination Frequency
0-9	0	0
10-19	57	24
20-29	118	51
30-39	147	69
40-49	252	104
50-59	170	72
60-69	104	28
70-79	53	13
80-89	34	10
90-99	9	2
Total	944	373
Number of passes	370	125
Pass %	39.2	33.5

The frequency table shows that 39.2% of supplementary group got 50% or more in the main examination as opposed to 33.5% of unrestricted group.

Main Examination Results Mathematics 2: 2009-02 SE versus 2011-02 URE

Table 3 – Mathematics 2 2nd Semester: 2009 SE versus 2nd Semester 2011 URE results

	2009-02 Mathematics 2 SE	2011-02 Mathematics 2 URE
Mean	51.2034632	46.5621118
Variance	208.4183828	255.4347053
Observations	462	644
Hypothesized Mean Difference	0	
df	1047	
t Stat	5.040899579	
P(T<=t) one-tail	2.72836E-07	
t Critical one-tail	1.64631029	
P(T<=t) two-tail	5.45672E-07	
t Critical two-tail	1.962232341	

The table shows a substantial difference in the means of the Supplementary group and Unconditional Group – 51.2 for the former and 46.56 for the latter. The difference is statistically significant ($p = 5.4567 \times 10^{-7} < 0.05$).

The following table shows the mark distribution:

Table 4 – Mathematics 2 marks distribution

Class limits	2009-02 Mathematics 2 SE	2011-02 Mathematics 2 URE
0-9	0	0
10-19	6	30
20-29	16	58
30-39	64	109
40-49	142	191
50-59	109	133
60-69	75	79
70-79	36	23
80-89	10	17
90-99	4	2
More	0	2
Total	462	644
Number of passes	234	256
Pass %	50.65	39.75

Main Examination Results Mathematics 3: 2009-02 SE versus 2011-02 URE

Table 5 – 2009-02 Mathematics 3: SE versus 2011-02 URE Main Exams results

	2009-02 Mathematics 3 SE	2011-02 Mathematics 3 URE
Mean	55.90497738	44.65615142
Variance	241.3136569	179.131394
Observations	221	317

Hypothesized Mean Difference	0	
df	427	
t Stat	8.73868146	
P(T<=t) one-tail	2.71556E-17	
t Critical one-tail	1.648429975	
P(T<=t) two-tail	5.43112E-17	
t Critical two-tail	1.965535168	

The table above shows a substantial difference in performance between the SE group (mean 55.9) and URE group (mean 44.66). The difference is statistically significant ($p = 5.43 \times 10^{-17} < 0.05$).

The following table summarises the mark distribution:

Table 6 – Mathematics 3 marks distribution

Class limits	Frequency: 2009-02 Mathematics 3 SE	Frequency: 2011-02 Mathematics 3 URE
0-9	0	0
10-19	1	6
20-29	5	39
30-39	28	68
40-49	45	97
50-59	55	63
60-69	47	32
70-79	23	9
80-89	11	3
90-99	5	0
100	1	
Total	221	317
Number of passes	142	107
Pass %	64.25	33.75

Once again, 64% from the supplementary group obtained 50 or above in the main examination as opposed to 33.75% from the unconditional re-write group.

Overall Results: SE versus URE

Above are the results of student performance in the main examination only. However, the final performance of the students was calculated as the average of the pre-main examination year mark and the main examination on a 50-50 basis. We call the 50-50 results 'overall results'. The focus here is how SE impacted on the overall performance of the students as opposed to the URE. Again, we look at different mathematics levels.

Overall: Mathematics 1: 2009-01 SE 1 versus 2011-01 URE 1 results

Here, the first-semester 2009 (2009-01) results are compared with first-semester 2011 (2011-01).

Table 7 – Overall results for Mathematics 1

	2009-01 Mathematics 1 overall SE	2011-01 Mathematics 1 overall URE
Mean	44.75216638	42.43686007
Variance	303.8812832	233.6207929
Observations	1154	586
Hypothesized Mean Difference	0	
df	1321	
t Stat	2.845638976	
P(T<=t) one-tail	0.002250343	
t Critical one-tail	1.646007938	
P(T<=t) two-tail	0.004500686	
t Critical two-tail	1.961761418	

The table shows a slightly better performance by the supplementary group (mean 44.75) as opposed to the unconditional re-write group (mean 42.44). The difference, although small, is of statistical significance ($p = 0.0045 < 0.05$). Table 8 below shows distribution of marks.

Table 8 - Mathematics 1 marks distribution

	2009-01 Mathematics 1 SE	2011-01 Mathematics1 URE
9	0	
0-9	74	33
10-19	154	79
20-29	211	123
30-39	296	175
40-49	204	111
50-59	115	35
60-69	57	18
70-79	34	10
80-89	9	2
90-99	0	0
100	1154	586
Number of passes	419	176
Pass %	36.31	30

Again, more from the supplementary group (36.3%) obtained 50% or higher, as compared to the unconditional re-write group (30%).

Overall: Mathematics 2: 2009-02 SE versus 2011-02 URE

Table 9 - Overall results for Mathematics 2

	2009-02 Mathematics 2 SE	2011-02 Mathematics 2 URE
Mean	51.2034632	46.5621118
Variance	208.4183828	255.4347053
Observations	462	644
Hypothesized Mean Difference	0	

df	1047	
t Stat	5.040899579	
P(T<=t) one-tail	2.72836E-07	
t Critical one-tail	1.64631029	
P(T<=t) two-tail	5.45672E-07	
t Critical two-tail	1.962232341	

The difference in the means of the supplementary group (51.2) and the unconditional Group (46.6) is of statistical significance ($p = 5.456 \times 10^{-7} < 0.05$). The break-down of the marks are indicated in Table 10 below.

Table 10 – Mathematics 2 marks distribution

	2009-02 Mathematics 2 SE	2011-02 Mathematics 2 URE
0-9	0	0
10-19	6	30
20-29	16	58
30-39	64	109
40-49	142	191
50-59	109	133
60-69	75	79
70-79	36	23
80-89	10	17
90-99	4	2
100	0	2
Total	462	644
No passed	234	256
Pass %	50.65	39.75

The mark break-down confirms that the supplementary group (50.65%) gave a better overall performance as opposed to the other group (39.75%).

Overall: Mathematics 3: 2009-02 SE versus 2011-02 URE

Table 11 – Overall results for Mathematics 3

	2009-02 SE overall	2011-02 URE overall
Mean	54.80334728	42.30582524
Variance	254.780493	179.3125694
Observations	239	412
Hypothesized Mean Difference	0	
df	430	
t Stat	10.19992864	
P(T<=t) one-tail	2.52732E-22	
t Critical one-tail	1.648404969	
P(T<=t) two-tail	5.05464E-22	
t Critical two-tail	1.965496192	

Once again, there is a substantial difference in performance between the SE-era group (mean 54.8) and the URE-era group (mean 42.3). The difference is of statistical significance ($p = 5.055 \times 10^{-22} < 0.05$). This is confirmed by the following mark distribution in Table 12:

Table 12 – Mathematics 3 marks distribution

	2009-02 Mathematics 3 SE	2011-02 Mathematics 3 URE
0-9	0	0
10-19	1	6
20-29	5	39
30-39	28	68
40-49	45	97
50-59	55	63
60-69	47	32
70-79	23	9
80-89	11	3
90-99	5	0
100	1	0
Total	221	317
Number of passes	142	107
Pass %	64.253	33.754

64.253% of the supplementary group obtained at least 50% while only 33.754% of the unrestricted group obtained the 50% and above.

All of the above results confirm that student performance in the main examination was better in the era of supplementary examinations as opposed to the era of unrestricted re-write examinations. They also show that overall student performance was better in the era of supplementary examinations as opposed to the era of unrestricted re-write examinations.

Conclusion

It is clear from the results that student performance was better when provision was made for SE than URE. The fact that, for Mathematics1 results, students were admitted to the UoT under similar conditions (same UoT admission pre-requisites), that there was no curriculum change in 2009 and 2011 for Mathematics 1 to Mathematics 3, that the same lecturers were teaching during the 2009-2011 period, means the conclusion about the better performance of the supplementary group is reasonably justified. Most of the South African grade 12 learners apply for admission to and are absorbed by traditional universities. The remaining come to UoTs upon not qualifying for the traditional university programmes. The understandable reason is that in South Africa traditional universities offer mainly degree programmes while UoTs mostly offer the lesser diploma programmes. This somehow brings credence to assumption that the UoT students are a relatively homogeneous cohort. This means that the first-year intake of 2009 was relatively like that of 2011. This somehow weakens the possible assumption of one UoT Mathematics 1 intake in a particular year as potentially being

better than the intake of the other year. The first-semester or second-semester comparison in this paper (2009-01 versus 2011-01 or 2009-02 versus 2011-02) was deliberate to avoid variables associated with comparing first-semester marks with those of second semester. One of those variables is that the first semester in a particular year is relatively longer than the second semester. With all these arguments in mind, one can with a certain measure of justification, attribute the difference in performance to whether supplementary or unconditional re-write is provided for. In other words, the up-front knowledge of provision of supplementary re-write versus unconditional re-write impacted on the student's preparation for the main examination. Furthermore, the provision of the supplementary re-write resulted in the improvement in the overall performance of the students in the examination. It is therefore recommended that the supplementary option be re-implemented.

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Exploring University Students' Perceptions of Plagiarism: A Focus Group Study

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Abstract

Plagiarism is a matter of great concern to those who teach in higher education. The increase in technology has resulted in plagiarism becoming a source of anxiety for many students. Universities are continually being called upon to devote more time and resources to combating plagiarism. However, what of their understanding of students' attitudes towards and understandings of plagiarism? It is critical to understand student perceptions towards plagiarism to develop approaches to combat plagiarism. This paper reports on a focus group study that generated qualitative data on students' perceptions of plagiarism. Informal group discussions were held with first-year students to show how plagiarism appears from the undergraduate student's perspective. An interview schedule was developed to provide an overall direction for the discussion. The schedule followed a semi-structured, open-ended format to enable participants to set their agenda. The analysis revealed three themes of perceptions of plagiarism: lack of understanding of plagiarism, assumptions about plagiarism, and negative attitudes towards assigned tasks. This paper argues that there is merit in understanding students' perspectives regarding plagiarism to develop successful strategies to promote academic integrity and prevent plagiarism. The paper concludes with a recommendation that lecturers at tertiary institutions need to explicitly teach plagiarism, how to avoid it, and referencing.

Keywords: plagiarism, reference, focus group, undergraduate students

Introduction

Plagiarism is a global challenge in most academic institutions (Khoza & Mpungose, 2017; Mohamed, Abdul Samat, Abd Aziz, Mohd Noor & Ismail, 2018; Mahabeer & Pirtheepal, 2019). It is no secret that plagiarism has become a widespread practice among university students (Curtis & Vardanega, 2016; Nelson, James, Miles, Morrell & Sledge, 2017). For decades, students have been taking ideas and work from others and passing it off as their own. Park (2003) and Smart and Gaston (2019) state that mounting evidence proves that student plagiarism has become increasingly common

worldwide. Tertiary institutions worldwide aim to produce highly skilled and competent graduates and honest and ethical professionals (Ramzan et al., 2012). Yet, today more students are engaging in the act of taking the work of others without acknowledgment. Gullifer and Tyson (2010, p. 463) state, “universities need to devote increasing time and resources to combating plagiarism”. One way of addressing this problem is by understanding the reasons why students plagiarise.

Gullifer and Tyson (2010) state that from a psychological perspective, modifying someone’s behaviour or attitude is essential to gain a good understanding of that person’s perception of the problem. The purpose of this study was to explore university students’ perceptions of plagiarism. Learners at school are generally unaware of plagiarism’s challenges (Chu, Hu, & Ng, 2020). Secondary school learners have been known to use copy-paste (Nwosu & Chukwuere, 2020). Schools are not generally tasked with teaching students about plagiarism. There is a difference in the “literacy and epistemological understanding” (Hendricks & Quinn, 2000, p. 448) between schools and universities. Schools are characterised by “heavy reliance on textbooks” and “rote learning” (Hendricks & Quinn, 2000, p. 448). Schools do not make knowledge; universities do. The ethos of the level of education informs and infuses the writing, reading, and knowledge practices. Plagiarism is less of an issue in schools because they do not require students to use existing knowledge to overtly and clearly create their own new knowledge, expressed as different kinds of arguments. However, universities do, so acknowledging others’ work to build knowledge and establish your credible claims is vital.

Upon their arrival at university, students realise that higher education institutions take plagiarism rather seriously. In a study conducted by Khoza (2015), it was found that higher education institutions’ students find it easier to plagiarise if they were not trained to avoid plagiarism at the high school level. Given this, I feel higher education institutions must learn more about their students’ perceptions of plagiarism. This study may help universities develop strategies to promote academic integrity and reduce plagiarism.

In this paper, I present the findings from a focus group discussion on university students’ perceptions of plagiarism. In this study, the critical question is *what are the university students’ perceptions of plagiarism?* The paper is divided into four parts. The first part presents a review of the literature on plagiarism. In this part, I discuss the nature and purpose of plagiarism, plagiarism is a common problem, and how universities deal with plagiarism. I include a discussion of some of the pertinent studies that have been conducted on plagiarism in higher institutions of education. In the second part, I discuss briefly the methodology adopted in the generation of the data. Part three presents a discussion of the data in the form of questions (why do students’ plagiarise, how serious is plagiarism and how easy is it to be caught plagiarising) with the participants’ verbatim responses. The last part of the paper concludes with a recommendation that students at schools and tertiary institutions need to be taught explicitly what plagiarism is, how to avoid it, and referencing.

Plagiarism in higher education

The nature and purpose of plagiarism

There is no one agreed-upon definition of plagiarism (Fishman, 2009; Hansen, Stith & Tisdell, 2011). Bouville (2008) maintains that plagiarism has a general meaning of appropriating the words and ideas of others. Fish & Hura (2013, p. 35) agree when they state that there is a common element across many definitions that plagiarism is “the act of using another author’s work without citation, thus portraying it as one’s work”. The intentionality of the act of plagiarism also needs to be considered in defining plagiarism. Fish and Hura (2013, p. 37) assert that the viewpoint of unintentional plagiarism “often raises the question of whether students should be penalised when they are unaware they have plagiarised”. However, Yeo (2007) asserts that regardless of the intention, unintentional plagiarism is still plagiarism. For this study, plagiarism will be defined as “passing off someone else’s work, whether intentionally or unintentionally, as your own for your benefit” (Carroll, 2007).

Plagiarism as a common problem

There are several reasons as to what causes students to plagiarise. Such reasons include failure to understand tasks, attempts to deceive markers (Wilkinson, 2009), the pressure to excel in their studies, the belief that they cannot get caught, and poor time management (Gullifer & Tyson, 2010), laziness (Ismail, 2018; Magubane, 2018) and increased workload (Karasalides & Emvalotis, 2019; Chan, Rahman, & Sanudin 2020). Some scholars maintain that the students who cheat the most are those who party a lot and have active social lives (Straw, 2002; Ferro & Martins, 2016).

Aside from poor time management skills, unintentional plagiarism is another cause of student plagiarism (Joob & Wiwanitkit 2018; Chrysler-Fox & Thomas 2017). Unintentional plagiarism is a debatable issue that results from misunderstanding or confusion rather than a deliberate intention to plagiarise (Bramford & Sergiou, 2005; Das, 2018). Clough (2000) and Selemani, Chawinga, and Dube (2018) assert that students plagiarise unintentionally because they are not aware of how sources should be used within their work. Gullifer and Tyson (2010) found that students at an Australian university were confused about what plagiarism encompassed. These points to the issue of teaching and learning. Hendricks and Quinn (2000) caution that referencing should not be seen only as a technical skill. They assert that referencing goes beyond the conventions of acknowledging the sources. Students who do not know what plagiarism is or how to avoid it are perhaps not taught about referencing in a meaningful way related to knowledge-making as an act. Most lecturers tell students that plagiarism is cheating, and they will be punished. Very few lecturers explain why it is such a problem or how to avoid it in practical and disciplinary ways.

How universities deal with the problem

According to Baruchson-Arbib and Yaari (2004), there are four types of academic plagiarism. The first type involves submitting work written by another student. The second involves ‘patch-writing’, where one takes sentences from a source and mixes

them with their own words without crediting the source. The third is neglecting to cite the citation and, fourthly, is failing to use quotation marks. University students do not understand that plagiarism constitutes all of these actions (Baruchson-Arbib & Yaari, 2004). For instance, in a study conducted by Dawson and Overfield (2006), it was discovered that students knew that plagiarism was wrong but was not sure what it constituted. They also found that students desired knowledge and good referencing practice to avoid plagiarising. However, a note must be made that students cannot divine from the ether to get this knowledge. The role of the lecturer in providing this knowledge is crucial. Hendriks and Quinn (2000) advocate for the explicit teaching of referencing as part of the overall curriculum. To this end, Vardi (2012) suggests that referencing may be taught from a plagiarism perspective or through a critical writing approach. In the plagiarism perspective, the emphasis is on avoiding plagiarism and its resultant penalties (Vardi, 2012). The preferred approach is the critical writing approach since “to write critically, students need to engage deeply with and respond to a range of sources to express their own thinking much like the expert writers do” (Vardi, 2012, p. 923).

Power (2009) discovered that students had a good understanding of what plagiarism is. However, they experienced confusion between paraphrasing, quoting, and citing. Mishra and Gautam (2017) state that there will always be confusion between plagiarism and paraphrasing. They discovered that some students believed that copying from various sources and combining constitutes ‘research’ rather than plagiarism. Students experience a lot of confusion and misunderstandings about what it constitutes, resulting in unintentional plagiarism (Howard, 2016). These cases show us that students have a basic understanding of plagiarism; however, there is also a lack of knowledge of the different acts that are also regarded as plagiarism.

The university’s treatment of plagiarism cases is also covered in the literature on plagiarism (Cahyono, 2016; Carroll, 2016; Thomas, (2017) and Chrysler-Fox & Thomas, 2017). According to Clough (2002), plagiarism is treated severely in universities. Universities have different ways of dealing with plagiarism. Clough (2002) explains that in some universities, the penalty for plagiarising is being given a mark of zero for the assignment. Whereas in other universities, the penalties range from withholding the student’s degree to student expulsion.

Students’ perceptions of plagiarism

Fish and Hura (2013), Smith (2017), and Moss, White, and Lee (2018) inform us that the frequency of student plagiarism occurrence is overestimated in universities by students and faculty. In a study conducted by Fish and Hura (2013) at a large urban college, they found that most students admitted that they had never committed plagiarism; however, the students believed that the other students committed plagiarism frequently. Fish and Hura (2013) further argue that it can be problematic as students who overestimate the frequency of plagiarism by other students may see plagiarism as a norm and choose to plagiarise. This is also confirmed by Ismail (2018, p. 200) that if students estimate the incidence of plagiarism among their peers to be

relatively high, they may consider plagiarising to be the norm and, therefore, less severe an offense. This incorrect perception of plagiarism can increase student plagiarism, as students will believe that it is acceptable to plagiarise because other students have. Therefore, students should be taught how widespread plagiarism is in their universities to eradicate the over-exaggeration of student plagiarism and avoid such confusion.

Yeo (2007) argues that students, in general, do not regard plagiarism as serious, especially when compared to other acts. Yeo (2007) states that some students do not consider falsifying bibliographies and submitting work done by someone else as serious cheating. Similarly, Gullifer and Tyson (2010, p. 474) found that students believed that unless the plagiarist copied work “wholesale”, the “penalties associated with plagiarism were perceived to be draconian, while the act of plagiarism itself is not perceived as serious relative to other deviant acts”. Although students acknowledge that there are serious consequences to plagiarising, they do not think it is as serious as other things such as crime.

Across the literature, many scholars have found that students have different perceptions about the chances of being caught (Molnar & Kletke, 2012; Brimble, 2016). According to Lathrop and Foss (2000), students plagiarised because there was only a 10% chance of students being caught. Park (2003) argues that students believe that there are more ‘pro’s’ than ‘cons’ to plagiarising work because there is hardly a chance of getting caught. However, in contrast to the above, Gullifer and Tyson (2010) reported that in their study, students believed that there is a 100% chance of being caught. This, however, was based on various rumours, such as lecturers supposedly knowing the sources very well. They argue that rumours of such influence students’ perceptions into believing that they can easily be caught.

Methodology

An interpretive paradigm guided this study. This paradigm emphasises an individual's ability to construct meanings of reality (Mack, 2010) and aims to understand these meanings, which influences one’s behaviour. It allows the researcher to look at the world through the participants' perceptions and experiences and explore their world by interpreting the understanding of individuals (Thanh and Thanh, 2015) and how they make sense of their social contexts. The interpretive paradigm was chosen for this study to understand how university students perceive plagiarism at a tertiary institution in KwaZulu-Natal.

The study adopted a qualitative approach. This is because qualitative research involves viewing and gaining insight into a particular world built by individuals' perceptions and beliefs. In qualitative research, researchers view their participants in their natural settings to make sense of the phenomenon in terms of the meanings the individuals have (Denzin and Lincoln, 2000). Myers (2013) asserts that the benefit of qualitative research is that it helps the researcher to view and understand the social and cultural context where decisions and actions take place. This study used a qualitative approach to discover students’ perceptions of plagiarism to reveal the

meanings of what students believe about plagiarism and why they choose to plagiarise.

This was an exploratory, qualitative study interested in understanding and interpreting students' perceptions of plagiarism. I used focus group interviews with a sampled group of students to generate data to this end. This study was a focus group study that interviewed a select group of undergraduate students at a tertiary institution in KwaZulu-Natal. The participants involved in this study were first-year Bachelor of Education students. There are a few reasons for targeting first-year students. Firstly, these students were already exposed to academic writing in a compulsory foundation of education module. Secondly, university students in the final year of study are less likely to plagiarise (Sims, 1995). Sims elaborates that students in their final years of study have more invested in their study and therefore have more to lose. He also speculates that they have had more practice at writing with sources. Thirdly, first-year university students generally understand epistemology as "something out there; not as being constructed" (Hendricks & Quinn, 2000, p. 451). Of the 900 first-year students invited to participate in the focus group interview, fifteen positive responses were received. From the fifteen, seven eventually attended the focus group interview. There were five female and two male students. Four students were African, and three students were Indian. Two students were registered for the Foundation/Intermediate (Grades R to 7) programme. The other five students were registered for the Intermediate/Senior (Grades 4 to 9) programme.

Focus group interviews allow for a conversation between the researcher and many participants at the same time to explore people's perceptions. The focus group interview process allowed me to examine what students think about plagiarism, how they perceive plagiarism, and why they feel that particular way about plagiarism. The focus group students were asked a set of five questions, which were audio-recorded and transcribed.

Credibility, transferability, dependability, and confirmability increase trustworthiness (Guba and Lincoln, 1994). The concept of credibility refers to how the findings reflect the participants' actual reality and experiences. This was ensured by audio-recording the interviews and transcribing the recordings verbatim. These transcribed results were handed back to the participants to confirm if what they had said during the interviews was correct. This increased the dependability of the study. To improve further the confirmability, I made the research process as transparent as possible. After the data had been analysed and discussed in detail, commonalities were drawn out of the study to make research and results transferable to other contexts.

Durrheim and Wassenaar (2002) suggest that it is vital that all research studies follow the three ethical principles, which are: autonomy (refers to gaining participants consent and voluntary participation), non-maleficence (non-harmful study), and beneficence (who is going to benefit). These three ethical principles

worked to ensure the participants' protection and safety and were applied throughout this study's research process. Before conducting the research, the participants' autonomy was taken into account by gaining permission from the participants to participate in this study. All seven participants had signed a consent form agreeing that their inputs would be audio recorded, that participation in this study was voluntary, and they were at liberty to withdraw from the interview at any point. The participants were also informed about non-maleficence, in which they were ensured that participating in this study would bring no harm to them in any way possible. Participants were also assured that their participation would be kept strictly confidential and that their names or any other aspects revealed in this study would be kept anonymous. It is only once this was made known to the participants that the research commenced.

For the analysis of the data, the transcriptions were read several times to identify content topics. In other words, I looked for similar threads interwoven in the transcripts. After the initial trawl (involving the continued coding of the data until no new categories were found), patterns and commonalities were identified and grouped into themes.

In the next section, I present selected data followed by a theorised discussion.

Discussion of data

I will discuss the data obtained from the focus group interview in terms of the three research questions:

- Why do students plagiarise?
- How serious is plagiarism?
- How easy is it to be caught plagiarising?

Why do students plagiarise?

According to the participants, one cause of student plagiarism is laziness. Students show a lack of responsibility when it comes to their academic careers. From the interviews, it was discovered that students might be lazy to engage critically in the assignments given to them. The participants said:

P2: Maybe you are too lazy to think. People are sluggish to go and do research.

P5: They make friends with people who have done it before and people who have excelled before, and they take their work.

From this, we discover that the participants perceive that students, in general, do not like to engage in assignments and become involved in the research of information, but instead choose to plagiarise. The participants also perceive that some students choose not to make an effort at all but rather submit another student's previous assignment as their own. Overall, the participants viewed students' lack of responsibility and work ethic as laziness, which causes them to plagiarise. The issue of laziness as a possible reason for students to plagiarise is confirmed in studies conducted by Ismail (2018), Selemani et al. (2018), and Ayon (2017). In the Selemani et al. (2018) study, 84.9% of the Malawian postgraduate students indicated laziness as a reason to plagiarise.

There is a perception among participants that students are also procrastinators and choose to tackle their tasks closest to the due date. When students do this, they begin to panic at the last minute due to a lack of time and resort to plagiarism. A participant said:

P1: Maybe you are doing your work at the last minute, like close to your submission date. Then you have to take whatever you have without adequately analysing the information and not writing it in the right way, so you go and put whatever you have and then submit.

The above shows that there is a perception that students begin to panic when their work is left for the last minute, and this may easily lead to plagiarism. If the student is against the clock in completing a task, they may quickly fail to reference and cite their work properly. When students are more focused on completing the task, they tend to forget academic writing rules and end up committing plagiarism.

The participants also revealed that university students do not know how to reference correctly. The participants could not understand why there are so many different referencing styles and why it is always changing. The students commented that the causes are:

P7: Not knowing how to reference. They are not learning how to reference correctly.

P5: What I do not get about referencing is the APA 1, 2,3,4,5, and 6. I do not know if they have 7, 8 9 now (laughter); it does not make sense because there are so many references changing.

P6: I also did not know about those APA somethings.

The above views are an indication that many of the participants do not know how to reference because they did not learn how to reference correctly. This may lead to a paraphrasing of ideas and words from different sources, without referencing and passing it off as their own. Participants also argued that they do not know what APA referencing is, nor do they understand why the APA styles of referencing are always changing. This changing of the APA reference style further confuses students, leading to a greater misunderstanding of how to reference. This also speaks to the issue of poor teaching and learning. Lecturers are responsible for teaching students when, how, and why to reference. The teaching of referencing should not be seen as a technical skill. Referencing is closely related to knowledge-making in the disciplines.

The participants also specified a lack of an understanding of how to reference and write academically. The participants argued that the referencing styles are always changing, which brings about confusion in them. They also noted that some students do not know how to reference correctly and must be taught how to reference correctly. Similarly, the Joint Information Systems Committee (JISC, 2002), in the UK, discovered that “the main cause of minor plagiarism is a lack of understanding of how to cite material from other sources” (Bramford and Sergiou, 2005, p. 20).

The participants had also indicated that another cause of plagiarism at tertiary institutions is that students do not understand the task given to them.

P5: When you are given work, and you do not understand it, then you will end up plagiarising or taking other people's ideas because you are blank. When you genuinely do not know what to do, you end up taking others' ideas.

This lack of understanding of the task causes students to plagiarise because they cannot answer the task on their own. Because the student does not understand what to do and because of fear of failing, the student may resort to plagiarism by taking information from various sources and submitting it. This, too, points to the issue of teaching and learning. Hendricks and Quin (2000) found in their study with first-year English Second Language speakers that students could use technical conventions of referencing successfully after being explicitly taught referencing.

One of the participants indicated that yet another cause of plagiarism at tertiary institutions is that the students experience difficulty in academic writing. The student argues that at the primary school level and high school level, they are not taught how to write academically. However, at the tertiary level, one is expected to have the skills to write academically. This unpreparedness causes students to feel stressed, anxious, and overwhelmed; therefore, they resort to plagiarism to cope. The participant pointed out:

P3: You know, if at university I am going to be taught about academic writing, if I am writing a lot, why not at primary, at the high school level. Why am I just being introduced to it at university? Because it is going to be overwhelming. You know, now I am going to have to write articles, I have to write twelve-page assignments, it is going to be too much, and on top of that, I might not even have the fluency to express myself. But when, you know, you go on the internet, on Google, it's all there, you know, you look at one article, and you say "ah, I couldn't have said it any better" and when it comes to academic writing, you know because that's another set of skills on their own. Some students become somewhat difficult, and it goes back to the inconsistencies between tertiary education and our basic education.

The participant points out here that students are not trained on how to write academically at the basic education level. However, at university, academic writing is required of students. The student points out the inconsistencies and the gap between tertiary and basic education and states that this is why students plagiarise, as they did not acquire the skills needed in tertiary education. Some students have difficulty expressing themselves or their viewpoints in writing; therefore, they resort to going online or to other sources and extract words from there. According to Selemani et al. (2018), 84.9% of the participants in their study indicated that lack of good academic writing skills led them to commit intentionally or unintentionally plagiarism.

How serious is plagiarism?

The focus group participants were asked a question of how serious plagiarism is at their tertiary institutions. They revealed that they believed plagiarism is a severe matter at universities. However, they argued that it is only severe if one has to get caught plagiarising. The participants indicated that if one is caught plagiarising an assignment or task, they would have to face the consequences of their actions. However, the participants noted that although they were made aware of the consequences of plagiarising, they had never experienced nor heard of any student facing such harsh consequences. The students commented:

P2: It is very serious, you can be caught, and you can be penalised. Students in varsity could face disciplinary action or could end up being expelled. It is just that we do not realise how serious it is. It is serious.

P3: In my three years in university, I have never heard of an academically excluded person for plagiarising. I have never heard of anyone paying a fine, suspension, or anything, so we might say it is serious, but we have not seen the consequences yet.

P5: If a student has plagiarised, the lecturer is giving that student another chance.

These views above show that the participants believe that there are serious consequences to plagiarising that can essentially harm their academic careers; however, they have not seen or known any student who has had to pay the price of plagiarising. They believe that the university lecturers are lenient on students as they allow students a chance to resubmit their work rather than allowing them to face the severe consequences of plagiarism. Therefore, it could be said plagiarism is taken seriously at the university. However, the consequences are not perceived to be serious as lecturers show leniency to students. The study conducted by Selemani et al. (2018, p. 1) with Malawian postgraduate students found that academics' common sanctions include giving a warning and asking the student to re-write the plagiarised work.

The participants view plagiarism as serious and believe that there are both academic and legal consequences to face if one is caught. However, they had not heard of any student caught and faced these consequences, but instead, they have been let 'off the hook' by the lecturer. Participants state that lecturers often give students another chance to rewrite their plagiarised assignment rather than allowing them to face the university's consequences. In a study done by Kuther (2003), it was found that students believed that ethical lecturers do not tolerate cheating or plagiarism. However, they felt that lecturers should exercise judgment in handling and acting with compassion and allowing students a second chance to rewrite plagiarised work. Although the participants in my study acknowledge the severe consequences of plagiarism, they appreciate that lecturers provide them with another chance to correct their work rather than allowing them to face such consequences.

How easy is it to be caught plagiarising?

The focus group was asked a question on the chances of one getting caught plagiarising. The participants revealed that they believed that the chances of one getting caught plagiarising is very slim and unlikely. One of the reasons is because of the large number of students in a class. One participant commented:

P6: I think the chances are very slim. I do not believe they have the time to go out and look at every assignment. The volume of students that our lecturers have to cater to because if I am sitting in my office with 300 scripts, there is no way I am going to read through thoroughly through all of them.

The view above shows us that participants perceive that it is unlikely to be caught plagiarising, especially when large amounts of students are in a class. The participants believe that it is impractical for lecturers to go through all scripts to determine if students have plagiarised, especially when there is a 200-300 student class. The participants believe that lecturers do not have sufficient time to check thoroughly through each assignment to see if they plagiarise.

The focus group revealed that students are unlikely to be caught plagiarising as they are always coming up with new ways to beat the system to avoid being caught. Even with anti-plagiarism programs like Turnitin, students still find a way to cheat their way out. A participant spoke from her experience:

P4: People were submitting it with weird things like their CV's and job application letters. It is an Education Studies assignment, but you would submit your Physical Sciences practical to Turnitin. Students are smart. They can get away with anything. Students find ways to be not caught.

The above shows that students have found ways to cheat the system. Rather than submitting their assignment onto Turnitin to get a plagiarism report, students choose to be dishonest and submit other documents so that the percentage of plagiarism would be low.

The participants interviewed revealed that students are unlikely to be caught plagiarising if they change the words in their assignments. The participants point out that if one has to plagiarise and synonymise the text, they would not be caught plagiarising. The participants also indicated that using a "Word Spinner" program, which ultimately changes all the words around and into synonyms in the assignment, would help you plagiarise and get away with it.

P2: Spin the assignment. Use synonyms. You will never be caught. If you use synonyms and what you call this - word spinner, you never are caught.

The above shows that students have ways of avoiding being caught for plagiarising. Their manipulative methods are commonly used at the tertiary institution, and, according to the participants, these methods have proven to be successful. Such instances make it difficult for universities to develop strategies to prevent students from plagiarising. Perhaps constant motivation or reminders of the importance of honesty and good morale from the university may change students towards being upright, ethical, and honest.

My study has shown that students choose to be deceitful by submitting false documents to anti-plagiarism programs such as Turnitin or using programs such as 'Word spinner', so plagiarism cannot be detected. The participants believed that they could get away with it because there are many students in a class, and lecturers do not have the time to go through each script to check for plagiarism. Burnett (2002), as cited by Park (2003), states that the students most likely to cheat are those who believe that the lecturers do not bother to read their assignments thoroughly or closely review their work. This shows that students take the chance of being deceitful and dishonest as a choice as they believe lecturers would not take the time out to check their work to see if students plagiarise.

Conclusion

This study aimed to explore students' perceptions of plagiarism at a tertiary institution in KwaZulu-Natal. Focus group interviews were conducted at the tertiary institution to gain information on how students perceive plagiarism.

This paper recommends that students are taught what plagiarism is and how to avoid it. Clough (2000) states to reduce unintentional plagiarism, students should be taught how to reference correctly. This teaching can take place at schools and tertiary institutions.

Khoza (2015) argues that students are more likely to plagiarise because they may not have been taught how to avoid plagiarism at the high school level. He further explains that teachers in schools should prepare students for tertiary education while they are in school by using digital technology (such as Turnitin) to lower the risk of plagiarism in universities. McCabe (2005) asserts that high school students use the internet to “copy and paste” plagiarism and usually get away with it. Teachers usually turn a blind eye towards it, sending the message that it is acceptable. He then argues that high school teachers should promote academic integrity and to reduce opportunities for student cheating. These opportunities include preparing multiples versions of the test, setting essay questions rather than short - answer questions or tests that are less vulnerable to cheating where students interpret the information they gather rather than “copy and paste”. Students feel it is acceptable to cheat at the high school level, and teachers ignore it. In turn, students take this perception of “getting away with it” to universities and continue to plagiarise. However, if anti-plagiarism techniques are taught to high school students, it may reduce plagiarism in tertiary institutions.

Tertiary institutions should teach about plagiarism and referencing to first-year students entering university. The main reason students plagiarise at the tertiary institution is that they lack an understanding of plagiarism. I agree with Hendricks and Quinn (2000) that references should not only be taught as a technical skill but should be part of the overall curriculum. Students in the Hendricks and Quinn (2000) study used technical conventions of referencing successfully after being explicitly taught referencing. The teaching of referencing should go beyond the “negative emphasis” to avoid plagiarism (Hendricks & Quinn, 2000:456). Mphahlele and McKenna (2019, p. 1087) agree universities should focus on “developing students’ academic writing practices” instead of “detecting and punishing plagiarism”.

The participants in my study referred to Turnitin as a tool to detect plagiarism. The university at which this study was conducted uses Turnitin quite extensively. All students (undergraduate and postgraduate) are compelled to submit Turnitin reports with their writing. However, the literature on technological detection tools for plagiarism suggests that these be viewed with some caution. In a study conducted by Ayon (2017) among students and instructors in Lebanon, the participants revealed that Turnitin deters plagiarism but does not inhibit it. Similarly, Mphahlele and McKenna (2019) caution universities not to see Turnitin as a tool to detect and punish plagiarism. Their study recommended that:

that in order for text-matching software to be appropriately understood and implemented, significant work needs to be done in the field of academic development to ensure that staff and students understand that plagiarism

can be an unintentional act, which requires appropriate development of academic literacies to avoid, and that referencing is a central academic literacy practice emerging from our knowledge-making practices (Mphahlele and McKenna, 2019, p. 1087).

The teaching of referencing should educate students on what plagiarism is, what actions are considered plagiarism, and cite and reference using the correct referencing style. If students were educated on this, unintentional plagiarism would be limited. However, if the student has completed the course and still chooses to plagiarise, they should bear the university's consequences of plagiarism.

I agree with Ismail (2018) that there is a genuine need to increase university students' understanding of plagiarism and its consequences. Therefore, I recommend in line with Colella-Sandercock and Alahmadi (2015) and Leonard et al. (2015) that it is not enough to alert students of university rules around plagiarism, but that lecturers have conversations with students about plagiarism and its consequences. Lecturers need to find strategies to take a proactive approach to plagiarism. To this end, I borrow from Eaton et al. (2017), who suggest that lecturers include formative feedback in their teaching so that students get opportunities to focus on developing their writing and referencing skills.

Universities should also provide a constant promotion of honesty and academic integrity to students. This form of motivation could subconsciously change students' negative attitudes and guide them to become honest citizens of the community. Creating a 'culture of integrity' may reduce student cheating and establish 'the value of living in a community of trust' (McCabe and Trevino, 2002).

I would like to conclude by acknowledging that my study included only seven first-year undergraduate students. Future research should include students from across the year of study as well as postgraduate students and lecturers. This research could also evaluate the effectiveness of anti-plagiarism interventions and prevention strategies.

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Factors that Affect Efficiency in the Utilisation of Performance Management Data Sets at Tshwane University of Technology

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Abstract

The research explores the conflicts in the management information systems within the South African Higher Education Institutions (HEIs). Research done on the quality of data that has been assessed and evaluated is still very limited and scanty. This study aims to fill the gap by conducting an empirical study on the performance management data with a geographical demarcation by selecting a specific university of technology- Tshwane University of Technology (TUT). An explanatory design was used to determine why there are so many data errors to discover and suggest solutions to the problem. The units of analysis are individuals. The reasons why individuals make mistakes and why from the on-set data is not captured accurately. This is a cross-sectional study and data was collected from respondents over a period between two and seven months. Questionnaires were distributed over a period of seven months and interviews were conducted over a period of two months. The primary causes for inaccurate data are identified as data managers are not sufficiently trained; and staff members are not always aware of where he or she fits into the organization. Data capturers are not adequately trained to prevent data errors and a lack of communication also contribute to data errors. Research confirms that user resistance can cause the implementation of a new MIS system to fail. There is still a gap in understanding how users evaluate changes related to a new information system. It is further confirmed that there exists a relevance between colleagues opinions, self-efficacy for change and user resistance (Kim & Kankanhalli, 2009). The following training modules are suggested to be included in the training programme: the importance of data accuracy and consequences of data errors; basic management skills, the value chain of the university as well as targeted training to address specific ITS data errors.

Keywords: HEIs, MIS, data management, data quality, productivity, performances

1. Introduction

South African HEIs are required by law to submit detailed reports with information about students, employees, and academic performance in standardised forms. For HEIs to perform adequately in this regard, it needs to ensure the ability to capture, store, process, and analyse valuable information and data on all categories of academic activities efficiently. This study intends to assess the quality of data and data management within HEIs. Within the South African higher education context, the Higher Education Act (2017) requires all HEIs to submit reports to the Department of Higher Educating and Training (DHET). However, over the last ten years, HEIs have battled with submitting accurate and timely reports. Furthermore, the consequences of such delays have been severe penalties imposed by DHET. Against this background, this study attempted to study factors that affect efficiency in the Management Information System (MIS) of an HEI. A review of internal reports from HEIs shows that data sets belonging to the HEIs are generally reliable and accurate. However, the management of such data sets could be enhanced by following local and international best practices on the management of large institutional data sets. Renger (2015) has proposed various practical methods of enhancing overall efficiency in the capturing, storage, and analyses of large institutional data sets that are used for planning and decision-making globally.

Renger (2015) has pointed out that MIS systems should be constantly upgraded and improved by using innovative and modern methods of ensuring data quality and efficiency. The author has highlighted key indicators of satisfactory performance in this regard. These indicators are consistent with guidelines provided to institutions of higher education by the DHET. The purpose of this study was to explore the relevance, veracity, and potential benefits of the guidelines proposed by Renger (2015) for enhancing overall efficiency in the utilisation of data sets that are stored in the MIS system of an HEI. The planned study had the potential for improving data quality and efficiency. It also has the potential for highlighting areas that require training and the improvement of technical and managerial skills. Data sets belonging to institutes of higher learning should be monitored and evaluated as a means of ensuring data quality, integrity, and efficiency on a sustainable basis (Talmon, Mallat, Zaveri & Coifman, 2015). This paper discusses the research objectives, the literature review, and the method adopted for the study. The findings and their discussion present the research question, followed by a conclusion.

2. Research Objectives

The two main problems to be resolved are lack of accuracy in data sets and lack of efficiency in information management. Solutions for improved data management should be developed. Higher Education institutions are forced to use business improvement methodologies and quality models to survive in the ever-growing global market. To assess and evaluate the overall degree of accuracy of data captured and submitted by an HEI to the DHET; To identify possible causes for inaccurate data; To assess the possible impact of inaccurate data on institutional planning, and to determine if data owners adhere to training needs.

3. Literature Review

HEI data reports were used for this study because HEI data reports can be measured for accuracy and the measurements are reliable. There is also evidence that HEI data sets are not always correct and need corrections. The actual HEI data sets or data reports were not used but the perception and knowledge of staff involved in data at the HEI were tested and within the results together with current literature recommendations were made for improved data sets. All efforts need to be made by HEIs to ensure that the data sets and data reports HEIs submit to DHET is correct. The data sets and data reports also undergo a thorough audit process by independent auditors before submission to DHET. During the process it is found that HEIs become hasten and often spend hours to correct data errors before the data sets and data reports are ready for submission to DHET as confirmed by (Steyn, 2014).

The South African Higher Education Act (1997) requires all HEIs to submit reports to DHET. HEIs report data on its students, staff, space, and finances. Student data consist of student and qualification information such as biographical information of students and qualifications presented by the HEIs. Data under staff will consist of all the information of the staff corpse and detail of lecturing and support staff. Space data cover the space HEIs use such as accommodation for students, lecturing halls, and other venues. DHET can determine how much space per student is used. Data on finance will include all aspects of finance of the HEI, including students, staff, and the financial state of the HEI.

Annual data submissions of HEIs are used by DHET for monitoring the performance of the public higher education system, planning its future development, and distributing state funds to institutions. The Department undertakes regular checks on the reliability of the university data submissions. DHET is particularly strict on data required for monitoring and planning and relies heavily on the independent auditors for data reliability and reasonableness for subsidy. Directives supplied by DHET for guidance on data collection and data reporting assist the Council of each HEI to ensure that institutional data required for the allocation of state subsidies are realistic and correct. Furthermore, the Auditor General use the HEIs audit reports during their audit on enrolment and graduate numbers as impact indicators in the Department's Annual Performance Plan.

Bussin (2013) confirms that HE is a complex business and governing bodies should manage their universities today into the future by keeping pace with the necessary changes in governance, performance, and management practice. Cichocki and Irwin (2014) confirm that the speed at which organizations change will increase. This is not a pleasant process due to change and the already difficult existence of the leader and manager. Organizations need to separate the critical from the irrelevant and quickly. A clear vision of the future and a shared purpose need to be aligned by leaders. She furthermore also reiterate that organizational design matters because it powerfully delivers results.

MIS has become a necessity in any business, small and big. MIS often becomes such a part of the daily business it could be taken for granted. Some of the major reasons why firms are using MIS systems are business growth, serving their existing client base and adding new customers which then promote economic stability, increasing performances and managerial purposes such as critical information for planning and directing the business (Behl & Singh, 2014:26) According to Hillar (2014) "It is expected that investment into information and communications technology (ICT) in organisations can increase efficiency and productivity. The challenge is that there is a myriad of obstacles that affect ICT adoption in institutions. It is concluded that knowing the extent to which these barriers affect individuals and institutions may help in deciding how to tackle them." Investing in MIS and New Management Tools does not guarantee improved business results as proven in the literature by Pérez-Méndez & Machado-Cabezas (2015). An MIS system can be downgraded if fed with low-quality information, undermining the understanding of situations and as a result, the decision-making process (Souza, Botega, Segundo & Berti, 2015).

HEI's are obliged under the governance of the King IV Report. It is not new for HEI's to implement the key principles of good governance, as set out in King IV. It is imperative that the structures of governance and management of HEI's account to both internal and external stakeholders in a consistent and prescribed manner due to their statutory autonomy. In the Regulations for Annual Reporting by Public Higher Educations Institutions (2007), the reporting structure is clearly outlined. IT became so important in the King IV report, that it is expected from HEI's to make IT an integral part of HEI's. It is expected that members of the Council should assume responsibility for IT governance. IT is not only important for the daily business of an organisation but is also a strategic asset to an organisation.

IT governance is senior management's capability to direct, measure, and evaluate the use of an enterprise's IT resources in support of the achievement of the organisation's strategic objectives. This can be achieved if people, process, and technology provide the management system together. Firstly, people are used to achieving predefined objectives. This will develop in processes, which entail fewer people dependency. Later it will develop into IT processes to deliver the services that reinforce the business operations.

Managers indirectly affect the development of business intelligence capability through multiple pathways. They need to encourage user participation and fact-based decision-making values when promoting the progress of business intelligence in organizations (Kulkarni, Fobles-Flores & Popovic, 2017). It is the responsibility of computing professionals to ensure that the negative consequences of information and communication technologies (ICT) are minimized, according to the ACM code of Ethics. With careful sociotechnical analysis in the promotion of system building, negative consequences can often be foreseen. Anticipatory technology ethics, technology road mapping, morphological analysis, and control structure analysis are some of the techniques that can be customized and integrated to be used in education to assist in eliminating negative consequences (Markus & Mentzer, 2014).

Information technology systems is moving to a more persuasive mode and use persuasion, which is a form of social influence and is part of contemporary life, to create user-friendly messages in information systems. Although it is sometimes marked as negative there is a growing interest from research in designing and developing intelligent systems that use persuasive technologies for promoting behaviour change in several domains (De Carolis & Mazzotta, 2017).

The international standard of data quality (ISO / IEC 25024: 2015) defines 15 metric items to measure data quality namely: accuracy, comprehensiveness, consistency, credibility, correctness, availability, compliance, confidentiality, cost-effectiveness, precision, traceability, understandability, availability, movability, and recoverability. The model was adjusted with seven characteristics from 15 characteristics namely: Accuracy, Completeness, Consistency, Confidentiality, traceability, Understandability, and Recoverability (Liu, Chen & Cai, 2018).

“Data governance is the practice of putting standards, processes, and controls around enterprise data to ensure availability, usability, integrity, and security of the data employed in an enterprise. Organizations use a variety of solutions including data quality and master data management to ensure the integrity of non-transactional data.” Very little attention has been given to the integrity of non-transactional data, data in rest, despite the crucial of the non-transactional data. There is currently an urgency in finding a solution to ensure governance of transactional data due to recent changes in the business and technology environments and increasing compliance requirements. Information analysis, exception management, and continuous monitoring abilities are critical components of a sustainable data quality management program (Dutta, 2015).

Kroll (2018) suggests that the hallmarks of responsible data governance are becoming legal requirements and therefore public as well as private organizations must consider how they will field accountable data governance regimes in the coming years. A detailed list of actions which can be taken is discussed, from security and privacy, write and publish data-focused social impact statements, auditing of correctness, challenging of assumptions and examine successes, errors, and feedback loops as well. In this paper, the establishment and empower of a review board.

Although the study done by Shim and Park (2019) is inconclusive due to the limitations of the study, it is confirmed that government employees have different motivators than employees in the private sector. Government employees are positively influenced by servant leadership which is described as leaders who put followers ‘growth and well-being before their self-interest. Servant leaders are characterized by authenticity, altruism, empathy, a sense of community, and empowerment. As a result, voluntary engagement at work is maximised because employees’ needs are satisfied which results in maximising organisational effectiveness.

Bao, Lu, and Zhu (2015) confirm a high-performance HRM system has a significant positive impact on innovation; innovation has a significant positive impact on firm performance, thus, a high-performance HRM system provides a significant positive impact on firm performance. Employee development, profit sharing and performance evaluation as three kinds of practices for firm performance is not significant. More comprehensive training can promote the comprehensive development of the staff, and further improve firm performance; encouraging employees to participate in the management of the business and expressing their views can improve their organizational loyalty, thus improving firm performance.

Robbins and Judge (2017) focus on a limited number of attributes that can contribute to an employee's positive or negative evaluation held by employees. Job satisfaction, job involvement, and psychological empowerment go hand in hand with each other. An employee with organizational commitment identifies with a particular organization and the goals of that organization. Such an employee wishes to remain with the organization. Employees perceived organizational support is important and is the degree to which employees believe the organization values their contributions and cares about their wellbeing. Employee engagement refers to an individual's involvement, satisfaction, and enthusiasm for the work he or she does.

Effective teams have confidence in themselves and their team members. Effective teams also have shared knowledge of individual capabilities, which can strengthen the link between team members. This can have the result of team members to solicit informed decisions from their teammates. Management can assist to build team confidence by providing training to improve members' technical and interpersonal skills as well as helping teams to achieve small successes (Robbins *et al.*, 2017).

Tudor (2016) states that "In every field of activity, including the education, the competence/ skill represents the foundation to ensure the process performance and efficiency, enabling the transition from knowing and know-how to do towards know how to be and become. So, the competence can be understood as a synthetic, specific, and integrative combination of capabilities, knowledge, skills, and attitudes." This is also applicable to the workplace and is confirmed by Rusaw and Fisher (2017) "Professional development plays a considerably important part of employees' skills acquisition and applications for job performance, growth in career competencies and responsibilities, and contributions to organizational health and mission achievement". A balance between formation and workability influences performance. Errors can be reduced if managers establish a mechanism that provides an intermediate level of structure through standardization and balances it with flexibility acquired by granting employees a high level of discretions. To be able to implement it successfully managers should involve employees because employees perceive structures as standardizations flexibility and choice as the extent to which they adhere to standardization and the degree of discretions they have. For optimal success, standardization would be set at an intermediate level (Nissinboim & Naveh, 2018).

Managers often derive from staff members who excel in their technical field and have excellent knowledge and skills in their field of expertise. These new managers often lack knowledge of management. To be an efficient manager you also need complex knowledge and skills such as planning, organizing, coordinating, and decision-making skills. These management skills are needed to manage people and resources to achieve organizational goals (Gobind, Havenga, Kleynhans, Markham & Van Aswegen, 2016).

4. Research Methodology

Target Population

The Tshwane University of Technology uses the ITS (Integrated Tertiary Software) system for the processing of data records. This study investigated data accuracy, which applies to ITS data. Only TUT staff members who are ITS users were targeted for the study. For this study, a purposive sample was used. Twelve staff members who are super users were interviewed. The study also aimed to collect one hundred questionnaires but was unable to reach this number after numerous email requests for voluntary participation. Only sixty-six participants participated in the study. All questionnaires were completed through SurveyMonkey and could be used in the study without any spoiled questionnaires.

Babbie (2014) describes purposive sampling as a sample of respondents based on knowledge, elements, and the purpose of the sample. To use the widest selection of samples the study findings would not be useful.

5. Design

This study used applied research techniques and a combination of qualitative and quantitative methods of data collection and analysis. As part of the quantitative aspect of the study, data was collected from all eligible respondents in TUT by using a structured questionnaire of study. As part of the quantitative aspect of the study, data were collected from respondents by using individual in-depth interviews.

Applied research is described by Trainor and Graue (2013) as research done in co-operation with the community or constituency concerned. This will give the community or constituency concerned the opportunity to benefit from the research. Therefore, this research was done in conjunction with an HEI.

This study follows an explanatory design. According to Babbie (2014), a general-purpose of social science research is to explain things. This study aims to determine why there are so many data errors and then suggest solutions to the problem. The units of analysis are individuals. The reasons why individuals make mistakes and do not capture data from correct from the on-set. Data is collected from respondents over a period between two and seven months therefore this is a cross-sectional study. Questionnaires were distributed over seven months and interviews were conducted over two months. A cross-sectional study is described by Babbie (2014) as a study based on observation over a single point in time.

Instrument Design

The instruments used in this study were interviews and questionnaires. The interviewer received clear instructions from the researcher. Interviews were answered over two months. Questionnaires were sent by email to participants and answered by the participants on a link which led them to a web page where they could answer the questionnaires anonymously. Questionnaires were answered over seven months. The validity of the interview and questionnaire was confirmed by pre-testing.

Data Collection

The study used a combination of qualitative and quantitative methods of data collection and analysis. The design of the study was non-experimental, descriptive, and cross-sectional. As part of the quantitative aspect of the study, data was collected from all eligible employees of TUT who work on data capturing and processing within TUT. Data was collected using a self-completion questionnaire with open-ended questions. SurveyMonkey was used for administering questionnaires. SurveyMonkey is suitable for ensuring the anonymity of respondents. According to Levy and Lemeshow (2013:24), this procedure is referred to as a census (a complete enumeration of all eligible respondents). The researcher had enough resources for collecting data from each one of her eligible respondents. As such, the calculation of sample sizes was not necessary.

As part of the qualitative aspect of the study, data was collected from a purposive sample of 12 employees of TUT who work on data sets belonging to TUT students. Face-to-face individual interviews were conducted with 12 TUT employees. Employees from the different ITS subsystems at TUT (Student Administration, Finance, Space, Human Resources, and Employees of TUT liaising with DHET) were interviewed. The 12 respondents were selected based on purposive sampling.

Data Analysis

The study used a combination of quantitative and qualitative methods of data collection and analysis. Frequency tables, two-by-two crosstab analyses, and categorical data analysis (Hair, Black, Babin & Anderson, 2010) were used for performing quantitative data analyses. In addition to this, coding, tallying, thematic analysis, and triangulation were used to perform qualitative data analysis.

6. Results and Discussion

The first objective of the study was to test the overall degree of accuracy of data captured and submitted by an HEI to the DHET. The outcome of the data from questionnaires and interviews by staff members confirmed that incomplete as well as incorrect data errors are found when working with student records. Results from interviews with data managers it was confirmed that staff members feel there is a need to improve the accuracy of data. This question was also confirmed by the directives from DHET which was circulated during 2018 (DHET:2018). "During the DHET verification process of the final 2015 audited data submissions, it was found that the signed off audit tables as listed in Annexure B did not always reflect what was submitted in the database. This resulted in data having to be resubmitted to DHET or

having to be re-audited” It was furthermore confirmed through the literature study (Dutta, 2015) that it is not unusual that little attention was given to data integrity by organizations. The importance and importance of finding solutions to ensure governance of data has increased several folds only recently due to transformation in the business and technology environment and growing compliance requirements.

The second objective of the study explored the possible causes of inaccurate data. Laudon and Laudon (2015) suggest that there are only three principal sources of poor system performance, which are, software bugs and errors, hardware and facility failures caused by natural or other causes, and, poor input data quality. For the purpose of this study, the system performance was not investigated because it is an institutional decision whether the system will be investigated or not. However, an investigation into the HEI system can also be indicated for future research possibilities. Hardware and facility failures caused by natural or other causes were not mentioned by any respondent during the interviews and one can accept that it does not influence data accuracy. The third factor, poor input data quality, is confirmed as the major factor and was investigated during this study.

According to the literature the following points can be highlighted. Managers often derive from staff members who excel in their technical field and have excellent knowledge and skills in their field of expertise. These new managers often lack knowledge of management. To be an efficient manager you also need complex knowledge and skills such as planning, organizing, coordinating, and decision-making skills (Gobind et al., 2016). There is a possibility that data managers do not have all the skills needed to be effective in data management. This is confirmed by data from the questionnaires for the study Staff members do not always react timeously to correct data errors and often do not adhere to processes and procedures. There is no consistency in the process of correcting data errors. Data managers need to find an applicable method to coerce staff members to adhere to processes and procedures. The gap in knowledge and skills can be overcome by personnel training and development.

Unless a company has a specific commitment to a culture of collaboration, the focus will often only be put on achieving their internal goals and do not concern themselves with the promotion of interaction and integration between areas. The role played by individuals and their integration within the organisation are critical if the complexity of relationships in a supply chain is taken into consideration. Improved business outcomes, as well as improved customer satisfaction, can be ensured if the integration of the supply chain is promoted if HR practices facilitate the involvement of the members of the supply chain (Castán-Farrero, Gómez-Cedeño & Guitart-Tarrés, 2015).

Questionnaires of the study confirm that there are staff members who do not correct errors themselves but someone else corrects the errors on their behalf. This can have an effect of not understanding the impact errors have on other departments. Kriek (2019) confirms the importance that staff members in an organization know where they fit into the value chain of their organization. This could be helpful for the contexts

in which they operate. By showing the staff members where they fit into the value chain can be used as a tool to evaluate the business model and may open new fresh perspectives of what the team does. Communication is indicated as one of the biggest factors influencing data errors. According to data from interviews with respondents indicated during the interviews they feel that staff members are equipped to capture accurate data because data capturers receive enough training and training manuals. On the contrary, according to data from the questionnaires data capturers feel that if training needs have adhered to data errors can be eliminated because they will understand the system.

Robbins et al. (2017) state that good communication makes a business successful. Communication must include the transfer and the ability to understand the meaning. Communication acts to direct member behavior, create feedback by defining what and how good an employee must do a task, and provided emotional sharing. Communication also serves to exchange communication to facilitate decision making. The third objective of this study was to evaluate the possible effect of inaccurate data on institutional planning.

According to the current literature discussed it is confirmed by various sources such as Bussin (2013), Cichocki et al. (2014), and Millot (2014) that quality at universities needs to be of a high standard. Quality at universities includes the quality of data. All efforts need to be made by HEIs to ensure that the data sets and data reports of HEIs submit to DHET are correct. Annual data submissions of HEIs are used by DHET for monitoring the performance of the public higher education system, planning its future development, and distributing state funds to institutions.

During the March 2018 circular from DHET, all HEIs were warned that “If the verification process suggests that a university’s data submissions are incorrect, then the university will be required to correct errors and resubmit the amended database with a new audit certificate. Where necessary, the university may be required to amend the historical databases for the past 3 years. If this is deemed necessary, the university’s block grants or earmarked funds for specific years will be re-calculated for the past 3 years according to Section 11 (d) of the Prescription Act, No 68 of 1969, and any over-payments for these 3 years will be deducted from budgets before new funds are paid to the university. The Department will also, when necessary, make adjustments to university’s funding data if the report submitted by its external auditors indicates that a university has not complied with the Department’s policies/HEMIS directives, or if analyses undertaken by the Department indicate that a university’s data submissions for block and earmarked funds are flawed.”

DHET reiterated that both block grant calculations and progress reports of earmarked funds depend heavily on reliable HEMIS data submitted annually by universities to the Department. The Department will continue to monitor the reliability of the data in the HEMIS submissions (DHET 2013).

Souza *et al.* (2015) state that an MIS system can be degraded if fed with low-quality information, undermining the understanding of situations and as a result the decision-making process. Shaheen, Manezhi, Thomas, and Alkelya (2019) reiterates that inaccurate data in a dataset can lead to ambiguous results. The questionnaires answered by staff members confirmed that fifty percent of respondents have a negative experience with incorrect or incomplete data and it is a constant frustration and impacts their work negatively. During the interviews, all respondents confirmed that data corrections as a negative impact on their departments. It is time-consuming and unnecessary extra working hours. The fourth objective of this study was to determine whether data owners adhere to training needs.

Lack of enough or appropriate training is one of the biggest reasons for data errors. Gobind *et al.* (2016) confirm that there exists a relationship between training and firm performance. The mode of training is not as important as the appropriate type of training for a different group. Also important is to understand that training is not limited to workers only but should also include middle and top management.

It has been confirmed from the outcome of questionnaires that staff members feel that data quality can improve if training needs are adhered to because they will understand the system. Comparisons were made between actual training received and training preference. The outcome confirmed that staff members do not always receive the appropriate type of training. There is also a difference in opinion where fifty-seven percent of staff members indicated they received thorough training but forty-two percent of staff members feel they did not receive thorough training. Sixty-three percent of staff members did not receive any refresher training. It is also confirmed that data managers also need specific training in the field of management skills and, communication skills.

7. Limitations

This research has the following limitations:

Responses from questionnaires

Although the aim was to collect 100 responses for the questionnaires, only 66 responses could be collected. However, all the responses could be used, as they were all complete.

Responses from interviews

Unfortunately, the limited staff members responsible for managing data resulted in only twelve staff members interviewed. If more interviews were sought it would include staff members not primarily responsible for the management of data.

Student system

The majority of responses came from staff members who used the Student system on ITS, with only four responses from the Finance system. It would have been an improvement if more staff members from other subsystems such as Space and HR also participated. However, during the discussion with HRT, it was confirmed that the problems with data management were experienced at all four subsystems. The training program will therefore include all TUT staff members and will not be limited to staff members from the Student system and Finance system.

To strengthen the study more focus could be placed on observation during work procedures and interaction between supervisors and co-workers and less focus on questionnaires. The questionnaires should be supportive of the study. A Linker's scale could replace the current method for questionnaires.

8. Conclusion

It can be concluded that it is confirmed that there are data errors found and data accuracy need to improve. Data errors are caused by data managers who are not sufficiently trained, staff members are not always aware of where he or she fits into the organization. Data capturers are not adequately trained to prevent data errors and a lack of communication also contributes to data errors. It can be concluded that inaccurate data has major negative effects, especially for the HEI sector in South Africa and data owners do not adhere to training needs.

9. Recommendations

In an attempt to answer the burning issues which were the lack of accuracy in data sets and lack of efficiency in information management. Lack of accuracy in data sets increases the financial burden on TUT and discourages employees.

Current literature suggests that Shaheen et al. (2019) aimed to improve data quality. Inaccurate data in a dataset during research questions of clinical research studies can lead to ambiguous results. Removal of errors can result in increased cost. The aim was to improve data quality by enhancing conformance and minimizing data errors. They recommended implementing training programs and compliance with data management best practices successfully. Dai, Dietvorst, Tuckfield, Milkman and Schweitzer (2014) revealed that previous work identified high-performance expectation as an asset that can also be a liability when it comes to persistence. If external pressure and expectations are too high it can lead to an experience by the performer experiencing embarrassment, thus resulting in lower performance. Management should instead of striving for best practice, pay more attention to good personnel management. When employees talk they refer to the motivational effects of managerial relationships and the long-term commitment effects of friendships at work. Management will be able to achieve higher performance through the correct communication (Pass, 2018).

It is recommended that an appropriate training program is developed for TUT to address the factors which influence data quality. It is important to include all staff members who are involved or are in contact with the ITS system or any form of data management. Staff members of all modes of employment need to be included in the training, permanent and temporary staff members. If staff members feel they are already sufficiently trained they still need to undergo the training program. To ensure adequate training is presented, all staff members will attend the same training. This will ensure that no staff member is omitted because all data managers are not necessarily supervisors but have the responsibility of data management. As a researcher, I contacted staff at TUT's Department of Human Resources and Transformation (HRT) to confirm the viability of such a training program. After the discussion, they agreed on the development and implementation of a training

program in collaboration with the Department of Quality Promotions. The implementation of the training program will be included in the 2020 staff development program.

The following training modules are suggested to be included in the training programme:

- Overview and the purpose of the training, which includes the importance of data accuracy and consequences of data errors;
- Basic management skills to assist supervisors and data managers to be able to support staff members reporting to them;
- The value chain of the university and how different departments influence each other; Communication skills;
- Open discussions to enable staff members to address specific challenges; Follow-up training for the ITS system;
- Targeted training to address specific ITS data errors.

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Teacher Narratives of Social (in)justice: Early Experiences Shaping Pedagogy

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Abstract

This paper explores a sample of English language teachers' perceptions and practices of social justice in Johannesburg, South Africa. These teachers teach substantial numbers of learners who are not mother tongue speakers of English, learning exclusively through an English medium. This accounts for injustices that face learners regarding access to and performance in education. These learners are of various linguistic backgrounds and require support to meet the basic promotion and pass requirements for English proficiency. Guided by critical pedagogy, social justice education and multilingualism, this study explored teachers' narratives of their experiences of justice/injustice. In examining teachers' narratives this study explored whether these experiences of justice/injustice shaped teachers' perceptions of social justice and if teachers actively took up positions as agents of change through their teaching practices. Using a qualitative exploratory case study method, data in the form of written narratives was elicited from ten English teachers from two secondary school sites. This study found that teachers' views, values, and attitudes were shaped by their own experiences of injustices and marginalization. All teachers believed they play a critical role in the personal and academic growth of their learners and acknowledged the potential role they possibly play as agents of individual and social transformation. Curriculum demands and contextual factors for some made the enactment of social justice pedagogy challenging. Language was highlighted as a key area where learners were disadvantaged in the learning process and further support was needed.

Keywords: second and additional language learners, critical pedagogy, social justice, agency

Introduction

Education plays a critical role in social reproduction and as a means of social transformation. As such, education should provide learners with the capacity to think critically, be reflective and to elicit an understanding of others and the realities they come from to participate in actively improving society. South Africa's protracted history of colonialism and apartheid shaped deeply entrenched inequalities and injustices which are still prevalent in the lived experiences of its people. Despite changes in political ideology, from apartheid to democracy, quality education is still inaccessible to many, with social institutions like schools continuing to function as they did under apartheid (Spaull, 2013). Many former black schools were dysfunctional under apartheid and remain so after democracy due to the socio-economic disadvantages of the learners they serve (Fiske & Ladd, 2004 as cited in Spaull, 2013). According to Spaull (2013) elements such as ill-discipline, low cognitive demand and inefficient management have had an undeniable impact on former black schools as apartheid legacies. These schools display high dropout rates, high grade repetition, high teacher absenteeism and are characterised by severe underperformance (Taylor et al., 2003 as cited in Spaull 2013). Schools began desegregating during the early nineties with migrations of black learners into former Indian, coloured, and former Model C schools across provinces in South Africa (Chrisholm & Sujee, 2006)¹. Currently these schools serve diverse communities of learners of varied ethnicities and economic backgrounds.

In South Africa, the constitution recognises eleven official languages, but all do not have equal status in practice and within schooling, English and Afrikaans are the only two languages supported after grade 4 (Christie & McKinney, 2017). Monolingualism in a European language is positioned as normative and favoured over multilingualism. About language in the schooling system in South Africa, the overwhelming dominance of English that pervades the schooling system is evidence of the schooling system operating firmly within the logic of coloniality (Christie & McKinney, 2017). The most important resource that a child brings to the classroom is their language resources which are rendered as invisible or invaluable when they are confined to using a single language medium in which they have insufficient proficiency (Christie & McKinney, 2017). For second and additional language speakers learning various subjects through the medium of English with limited proficiency in the language, the goal of learning is reduced to learning English and memorization (Christie & McKinney, 2017). This has a substantial impact on learner performance throughout schooling as well as access to higher education. According to Mda (2000) the integration experiences of African-language speakers in English-medium schools in South Africa revealed that studying through English was frustrating, demoralising and even traumatic for many learners. Language is key to accessing education and schools therefore need to have a strong sense of social justice in terms of accessing education for all learners, irrespective of their linguistic capabilities.

¹ Note that apartheid nomenclature is used for research purposes only.

Given the challenges surrounding the use of language in education, the main aim of this study is to examine narratives of teachers' early experiences of social justice/injustice and how these may influence their representations of social justice in their teaching.

Theoretical framework: Critical pedagogy and social justice

The roots of social justice lie in critical theory. In describing lessons learned by Paulo Freire, Giroux (2010) provides a meaning for critical pedagogy as a movement that assists students in developing a consciousness for freedom by recognising authoritarian tendencies, empowering their imaginations by connecting truth to power and reading both the word and the world as part of a broader struggle for agency, justice and democracy. The premise that all men and women are not free and live in a world that has numerous contradictions and imbalances of power and privilege is the basis for all critical theorists. Critical theory is primarily concerned with a just society in which people can exercise full political, economic and cultural control of their lives (Aliakbari & Faraji, 2011). It is for this reason that critical theory serves as a basis for this paper, given its alignment with the challenges South African education has had to navigate through due to its historical past, mired as it is by injustice and inequality. Teachers need to develop an awareness of the diverse identity dynamics present in the classroom including the disparities that may exist between them. For teachers who are critical pedagogues, recognition of the imbalances of power and privilege and inequality and injustice are essential as is knowledge and practice of theories and approaches that are essentially dialectical. This study argues in favour of McLaren's (1989) assertion that the function of schools is the empowerment of students around issues of social justice. This entails the advocacy of issues relating to injustice, inequality, exclusion, and marginalisation of people and specifically learners in school communities. Institutions of learning need to challenge and disrupt all systems and processes that promote the marginalisation and exclusion of learners from reaching their full potential in their educational achievement. Schools, however, function simultaneously to sustain and legitimize the reproduction of the dominant class and its interests as well as the production of a future docile and obedient work force (McLaren, 2003). Schools are thus sites of both domination and liberation (McLaren, 2003). Critical theory calls for teachers to recognise how schools sustain the dominance of some groups and marginalization of others by supporting and perpetuating theories that link what is accepted as legitimate knowledge and power (Darder, Baltodano & Torres, 2003). Critical teachers need to view schooling as strongly linked to the struggle and goal of a better quality of life for all learners and the construction of a society free from exploitation of any form of one group over another. Content and knowledge needs to be carefully examined and the question of why this knowledge is being taught in the first place should be constantly asked.

This paper asserts that teachers are uniquely positioned to use their knowledge and experience in the South African historical context to act as possible agents of social justice and transformation. Teachers who emanate from similar narratives of ethnic exclusion, language exclusion or working class backgrounds become empowered

when they recognise their own agency at being active participants in the pedagogical process of challenging class antagonism which prevents learners from gaining the knowledge and skills needed to live whole, fulfilling lives actively participating in society (hooks 2003). Active participation of citizenship can be encouraged by challenging the existing structure of class and cultural antagonism that prevents students from gaining knowledge and using it constructively to break down the idea that students from working class or ethnic backgrounds need to conform, in order to be accepted (hooks, 2003). Teachers should create classroom environments that challenge and address negative tensions developing learning communities where everyone can be heard, their presence recognised and their contribution valued (hooks, 2003). According to Giroux (2010) personal experience can become valuable resources that give students opportunities to relate their narratives, social relations, and histories to what they are being taught. Confronting issues of class tensions however, is not, according to hooks (2003) only the task of those who come from working class or ethnic backgrounds but of all teachers who should engage with pedagogy that recognizes the importance of constructively confronting the issues of class. Schools should provide learners with the skills to think critically so as to participate and contribute to the policy decisions that govern their lives and should strive for democratic social relations where there is equal treatment and opportunities for all who reside within that society (Giroux, 2003). Pedagogy is a central element in influencing a culture that creates a critical consciousness in individuals to act as agents of social change (Giroux, 2010).

Social justice as defined by Bell (1997) is a goal towards full and equal participation of all groups within society, equitable distribution of resources and a vision of society where all members are physically and psychologically safe and secure. Bell (1997) defines the goal of social justice education to equip people with critical analytical tools to understand oppression as well as their roles in oppressive systems and to further develop the agency to counter and interrupt oppressive patterns and behaviours within themselves, the institutions they are a part of and the communities in which they belong. According to Hackman (2005, p.103) equity and social justice need to move beyond what she terms 'buzzwords' and need to become practical enactments within the classroom. Education is a major source of social transformation and should provide learners with tools necessary for a critical and reflective consciousness that will allow them to participate in the creation of a more improved form of social life than that which they are currently experiencing (Walker, 2003). Social justice education in conjunction with other educational theory bases, encourages students to take up a more active role in their education and supports teachers in the creation of democratic, critical, and empowering educational environments (Hackman, 2005). South Africa as a post conflict society and relatively young democracy still carries with it the burden of its oppressive past, which in some instances is still reproduced in current society. According to Bell (1997) oppression needs to be defined and analysed in order to understand how it operates on different individual, cultural and institutional levels both historically as well as at present. Social justice education needs a theory of oppression as it will allow for the thinking about the intentions toward the goal of social justice and the means that is used to actualise this, providing a

framework for action and reflection of steps taken and for the potential to remain conscious of the position that individuals have as historical subjects, able to learn from the past in order to meet current conditions in more effective ways (Bell, 1997).

Research design

Using an interpretive paradigm which allows researchers to view the world through the experiences and perceptions of their participants (Thanh & Thanh, 2015), this paper adopts a qualitative case study as an approach to examine teachers' narratives of their early experiences of social justice/injustice and how these shape their views of teaching. Qualitative methods of research are useful for describing the perspectives of a particular group of people toward events that have occurred as well as their beliefs or practices (Morrell & Carroll, 2010).

We used purposive sampling to ten teachers from two public secondary schools in Lenasia, Johannesburg. This non probable, purposive sampling is in line with qualitative research aims of being systematic and principled in attempting to best select teachers who will provide data that will be valid and best provide answers to the research questions.

We used teacher narratives to elicit data from the participants. According to Etherington (2000) narrative knowing allows us to gain interesting knowledge that brings together understandings about an individual, their culture and how they have created change. This method is chosen for this research study because the shape of story helps to organise how people have interpreted events in their lives, their values, beliefs and experiences that have guided those interpretations and their hopes, intentions and future plans resulting from those interpretations (Etherington, 2000).

Data was analysed by means of narrative analysis in which common codes and categories were drawn from teachers' narratives and linked to theoretical propositions. The validity/reliability/trustworthiness of the data were verified using multiple sources of evidence in a manner that encourages convergent lines of enquiry relevant during data collection (Yin, 2003). The use of multiple participants allows for triangulation to aid in the validity and trustworthiness of the data collected.

Ethical considerations were made prior to the conducting of research and gathering of data. These include written requests for permission from the School Governing Body and the principal to use the school as a site to conduct research. Written consent was also be requested in writing from the teachers sampled to participate in this study. The information presented to the School Governing Body, principal and teachers sampled included the purpose of the study, how and what length of time the sampled teachers will be expected to participate, the risks and benefits associated with participation in the study, how confidentiality was assured e.g. use of pseudonyms, the researchers' contact information, a statement indicating that participation is voluntary, and a participant may withdraw from the study at any time without any consequence and finally, what will be done with the findings of the study.

Data description and analysis

To ascertain how teachers' early experiences of social justice/ injustice we coded and categorised their narratives into several themes: growing up poor, challenging stereotypes, and linguistic injustices.

Growing up poor:

Gita (pseudonym), a twenty-six-year-old female teacher, describes her experiences of growing up with a single parent who earned a low income. She could not apply to university because of the bleak financial situation, and had to wait to get a bursary to study education. She describes the sensitivity she has for learners who share similar experiences or are dealing with difficulties as she did growing up:

I am not quick to judge if a child is sleepy or easily distracted. My own experience has taught me that they may be hungry or may be troubled by issues at home. My experience has made me more sensitive and has equipped me with an added sense of compassion for those I teach. My experience has also coaxed me into motivating kids about the importance and value of education and how education can truly change one's life. I often share anecdotes of my own life to try and give hope to them that there is a better day when education and hard work is involved. (Gita's narrative, July 2020)

The empathy and encouragement Gita portrays to connect with and motivate her learners, indicates her care for her learners, and that she goes beyond the teaching of content only. She shares her own experiences to substantiate that obtaining an education can bring forth opportunities for financial or other improvement in the lives of individuals. This is in line with Freire's (1970) feelings of respect and humility for those who are oppressed and less fortunate, which he believed fosters communication and trust between teacher and learner. The extract is also reminiscent of Freire's (1970) dialogic relationships in the classroom, as well as humanising pedagogy (Kajee 2018, 2020). Freire (1970) makes the assertion that teachers should enter dialogue with their students on an equal standing with mutual respect, care, and commitment. This is further evident in Gita's narrative as learners have developed a level of trust with her to share their own experiences of racism and injustice:

I personally have not experienced any injustices, but learners in my classroom have shared many stories of being treated unjustly. I have had learners confide in me about instances of racism against them from teachers and learners. I have also had learners express how they have been treated differently or unfairly because of their race or religion. Their shared stories have impacted my behaviour as a teacher in a positive way. I am now extra cautious in the way I behave around learners. I am more conscious and inclusive in the way I speak as well as the lessons I teach. In my lessons, I always try to show or mention a diverse range of examples that appeals to many children and not one group of children. (Gita's narrative, July 2020)

As Freire (1970) upholds; through "dialogical relations" the teacher is no longer the one who only teaches, but who is himself taught through dialogue with his student who assume the capacity to teach, while being taught. This extract demonstrates the cultivation of trust between Gita and her learners. She too has adopted a learner role through "dialogical relations" and has been transformed. Despite Gita's claim of not experiencing injustice personally, her experiences of growing up in a lower income

group has impacted on her attitude toward her learners and her teaching practice, designed as it is to motivate her learners to use education as a means of transforming their own lives. For Bartolomé (1994) a humanizing pedagogy promotes respect, trusting relationships between teachers and students, academic rigor and learning contexts where power is shared by teachers and students. Macedo and Bartolomé (2000) adds that the pedagogy values students' background knowledge, language, culture, and life experiences. Teachers who work with subordinated students have a responsibility to assist them in appropriating knowledge bases and discourse styles seen as desirable in society (Bartolomé, 1994). A humanizing pedagogy is crucial for both teacher and learner success and critical for the academic and social resiliency of students, given that educational policy is dominated by standardized and technical approaches to schooling that dehumanize students, especially those of colour (Del Carmen Salazar, 2013).

Challenging stereotypes:

Sami, a 35-year old male, recognised the need to use his role as a teacher to enact critical change in the thinking and way learners perceive and interact with others. Sami draws his perceptions of his role as an agent of social justice from his personal experiences of injustice that he faces as a Muslim man. He describes the preconceived notions and bias people have shown toward him because of his Islamic faith.

In my life, many instances of the injustices toward me stem from a clear judgement of the religion I follow. Dressing in the attire of a clearly Muslim individual regardless of where I am or what setting I am in, sometimes causes people who do not understand the reasoning behind our dress code to be unjust toward me. The media portrays the Muslim identity as inferior and oppressed. By donning attire that clearly shows this identity and thereby does not conform to the norm of what society deems as an accepted dress code gives certain individuals the idea that all Muslims are "stiff" and "oppressive" toward women and the people around them. Moreover, the notion of all Muslims are terrorists simply because they wear a turban, or a hijab is another injustice I have experienced. (Sami's narrative, March 2020)

Sami's experiences of bias towards him have influenced the outcomes he has envisioned for himself as a teacher. He aims to break down the stereotypes that he faces in his daily life by teaching his learners critical thinking skills in order for them not to make judgements of people based on stereotypes portrayed in the media and society at large. Freire (1970) views the humanist and revolutionary teacher as one who partners with one's students, such that efforts align with critical thinking and mutual humanization. Sami has identified the need to address negative stereotyping of people by the media by teaching beyond what is expected: the expectation of content as all that is necessary in learning. He describes his efforts to teach critical and analytical thinking skills that he recognises as important for learners in their perceptions of people from diverse backgrounds.

These experiences of injustice toward to me based on what ideologies of Islam is advocated, have given me insight into knowing and accepting the need to teach fairly firstly and thereby to teach not just what is necessary for an examination but also to teach critically and analytically developing these reasoning skills within learners so that they are not susceptible to believing everything that society advocates or that the media portrays but rather critically making an

informed decision and idea based on their own experiences without any bias. (Sami's narrative, March 2020)

The role of the problem-posing teacher as identified by Freire (1970) is to create the conditions under which knowledge from popular beliefs and dominant narratives “doxa”, are challenged and replaced by true knowledge “logos” based on rationality and reason. Freire (1970) encourages the practice of problem posing through dialogue between teachers and learners. Through his lived experiences, Sami has identified the problem that minority groups like Muslims encounter and he tries to enable his learners to think critically and not be susceptible to believing everything portrayed in the media. Sami does not specify the teaching method he uses to challenge the knowledge and views that his learners may have and merely states that he teaches them to be critical and analytical in their reasoning. He merely states that he encourages his learners to think critically and make informed decisions by recognising bias. This is done by encouraging his learners to think critically and make informed decisions by recognising bias. These are issues that impacted Sami's life directly, as was the case with two other teachers, Thembi and Sizakele, who experienced linguistic injustices.

Linguistic injustices:

Thembi is a twenty-six-year-old female teacher who comes from a rural area in KwaZulu Natal. She describes the way she was taught English as an injustice, based on the teaching methods that were used to support learners. Her teacher taught English predominantly using the mother tongue of learners, isiZulu which Thembi felt was an ineffective method in supporting the learning of the language. This had a negative impact on learners' ability to adequately understand English as they were largely dependent on translation, especially during examinations. At the same time Thembi acknowledges that some learners may have benefitted from the method employed by the teacher.

I am from a deep rural area school whereby the teacher used to teach us English using our home language which is isiZulu, even though that was fair for us, but on the other side it was unfair because if the teacher used to translate everything in isiZulu and during examination time the question paper is written in English and there is nobody to do translation for us, that was becoming problematic for us as learners. But somewhere, somehow it is helpful for other learners in their performance. (Thembi's narrative, July 2020)

First year teacher, Sizakele, had similar experiences to Thembi. She is a twenty-three-year-old teacher who comes from a home where only isiXhosa is spoken and attended a school in the township of Soweto, where she learnt English as a first additional language. She describes the difficulty she had in learning English and the methods and practices her teachers used to teach the language to her in her narrative.

I attended a school where we did English as an additional language. And at home we only communicated in isiXhosa. I tried speaking English in my English classes but most of the time my home language would just take over then I would end up talking/responding in isiXhosa in an English class. My English teacher really tried to make us answer or speak to each other in English but we would practice that for a few minutes then switch to our different home languages. This made some of my classmates to be less fluent in English. Prior to my matric

year, we had teachers that would teach us English using their home languages. Hence, we were used to communicate in different languages other than English in an English class. This had a negative impact on me and my other classmates, as we were struggling with reading comprehension and poems during exams. What was problematic the most was writing essays (paper 3). In order to pass English, one would need help from other people, like family or friends. (Sizakele's narrative, July 2020)

Both teachers, Thembi and Sizakele, describe their experiences learning English as challenging with examination periods highlighted as particularly problematic. In Sizakele's case different teachers taught her in their own specific home languages. This had a negative impact on her learning and education and highlights the disparities in how schools approach teaching English as an additional language compared with schools that have English as the Language of Learning and Teaching (LOLT) and as Home Language. The results of this were traumatic for her in the transition from secondary school to university which she describes as one of the challenges she has had to deal with.

Thembi and Sizakele are products of the inequitable education system and experience the linguistic injustice that many learners face in South Africa. Both describe the difficulties they experienced in learning English as a subject. What constitutes an injustice is the problems that these learners face once they enter tertiary institutions, given that the medium of instruction in most South African universities is English. Learning English as first additional language does not sufficiently prepare learners to meet the academic requirements at university as seen from Sizakele's traumatic experiences. Teachers are perhaps not making use of effective pedagogy to teach English to additional language learners or they may possibly lack proficiency in the language themselves. The experiences of learners in examinations, described by both teachers as being highly dependent on the need for translation highlights the ineffective pedagogy that was used for second additional language speakers in this case study. Childs (2016) demonstrates in her study on translanguaging in South Africa, the dehumanising learning experiences learners feel in the disconnect between their mother tongues and the dominant language of the classroom. In this case, Sizakele felt this at university where students are forced to make a dramatic shift to adapt to the English dominant environment. According to Romaine (2013) the speedy shift to English without appropriate support of the mother-tongue causes educational failure. The dominance of English in the education sector therefore causes learners who lack proficiency in the language to have traumatic experiences in school and university, making education inaccessible to them (Hurst & Mona, 2017).

These experiences by Sizakele and Thembi have given them perspective into the learning experiences of learners like themselves whom they currently teach. Thembi empathises with learners who are disadvantaged in the classroom due to lack of English proficiency and she attempts to address their needs using a bilingual approach in her lessons.

As an English Home Language teacher, I have experienced that some of the learners are privileged because English is their mother tongue, but some of them are disadvantaged. What I am trying to say is that some of the learners come from a background whereby they only speak

their mother tongue at home and they only speak English in the classroom. This reflects social injustice and has an impact on learner's performance in the English Home Language classroom. I have realised that speaking English only in the classroom is unfair for other learners, so in order to be fair, I have to use code switching by translating my explanation in Zulu so that those who are left behind can be able to understand what I am teaching. (Thembi's narrative, July 2020)

Thembi displays an awareness of the learner dynamics in her class related to those who are privileged and disadvantaged and is reflective of the specific challenges that her learners face. She addresses the needs of those whom she views as disadvantaged due to the linguistic barriers they face as second additional language learners and adopts a bilingual pedagogy, 'code switching' that she feels may support them. Thembi's awareness of the dynamics in her class, reflection on their specific differences and needs and action towards supporting her learners, models Hackman's essential components of social justice education. Teachers need to constantly reflect on how power and dominant group privileges connects to learners' social identities (Hackman, 2005). This is important because social identity can contribute to the reproduction of marginalisation of some groups and the reproduction of the oppressive structures of dominant groups (Hackman, 2005). Teachers need to consider the composition of the classroom when analysing the issues of privilege and address the needs of all learners (Hackman, 2005). Thembi recognises that using English only is a disadvantage to those who are not home language speakers and uses a strategy to support and include them in the learning process. According to Hurst and Mona (2017), multilingualism is a necessary response to support learners who have limited proficiency in English.

Jameela, a twenty-seven-year-old teacher, describes herself as fortunate not to have experienced any injustice and recognises the difficulties that her peers endured as foreign nationals. She claims that being born in a post-apartheid era helped create an awareness of the movement toward a more equitable society which was only highlighted and notable once she attended high school and university which were more diverse environments than school. Her experiences as a learner in school were limited to exposure to learners very much like her in terms of racial demographics, from the surrounding predominantly Indian community. This made her unaware of the challenges that other learners from more diverse racial and social circumstances experience in the school environment and which she would later encounter as a teacher.

In my personal life, I was fortunate enough not to experience social injustices to an extent whereby it would have had a negative effect on me. I grew up during an era (post 1994) when much emphasis was placed on overcoming the social injustices based on race. I grew up and attended school in a predominantly Indian community, so the issue of race, especially in my primary school days, was something which I didn't ever consider to be an issue. However, as the years went by and I entered high school and later university, it became clearer that race as well as nationality was an issue. Especially concerning foreign nationals from African countries; I feel that they were not treated or given opportunities to bridge the gaps in terms of opportunities, although they were living and learning amongst us. (Jameela's narrative, April 2020)

As an English teacher, Jameela notes the injustices that learners face as second and additional language learners who are trying to obtain a secondary education through a strictly English dominant medium. She highlights the difficulties these learners experience in grasping concepts in literature and poetry due to the complexity of the language and identifies the studying of Shakespearean texts as particularly obscure for learners who are struggling with understanding English. She describes this in her narrative and states that learners do not have sufficient support from their parents due to social and economic factors that have been shaped by the history of South Africa.

On a daily basis, as teachers of English as a home language, we deal with injustices in our classrooms. English is being taught at a home language level to learners who aren't from English speaking backgrounds. There are instances where learners do not understand certain concepts, especially those pertaining to literature and poetry, simply because the language seems too complex for someone who may be speaking English as a second or third language. Literature pieces such as Shakespeare seem like another language altogether for these learners who are already struggling with a language barrier. Generally, these are the learners who come from the townships, some from impoverished backgrounds, some raised in homes with single parents who don't have the time to take an interest in their child's education or barriers thereof; some parents uneducated themselves, not having even completed high school, or unable to speak/converse in simple English. (Jameela's narrative, April 2020)

Teachers need to create classroom environments which challenge and address negative tensions and develop learning communities where everyone can be heard, their presence recognised and the contributions that they make, valued (hooks, 2003). Jameela attempts to create a classroom environment which she believes is a 'place of social justice' that is a safe place for learners and there is no discrimination based on learners' social circumstances. She believes the pedagogy she uses is in the best interests of her learners, however it may achieve the opposite and encourage the frustration and exclusion that learners feel in learning as second and additional language speakers. Despite having an awareness of injustice and unfair opportunities that some learners are faced with, Jameela implements pedagogy that may further disadvantage learners. She describes the 'English only' rule that she implements as an attempt to support her learners and believes that this will allow her to help them in improving their communication skills. Note Jameela does not speak the learners' languages.

Personally, in my own classroom, I try to implement an "English only" rule, I encourage the learners to speak to each other in English, rather than their native language; in this manner I am able to hear and address their communication skills in an informal way, hoping that this would have a lasting impact in a formal setting. I also, consciously, try to make my classroom a place of social justice whereby there is no discrimination based on any social factors, in an attempt to make the classroom a safe space for learners. Good behaviour, etiquette or efforts in an attempt to contribute positively to the classroom or lessons, are rewarded (either through assigning a role of responsibility or otherwise). (Jameela's narrative, April 2020)

Giroux (2003) believes that education is a political and moral practice that should provide knowledge, skills and social relations that should enable learners to discover and explore for themselves what it means to be an engaged citizen in democratic

governance. Although Jameela believes that forcing learners to only speak English in her class will benefit them by her correcting their speech, it may encourage and perpetuate the dominance of English as the accepted means of learning and what is deemed as acceptable knowledge. The language and cultural resources that second language speakers bring into the classroom are not accommodated or welcomed. Critical teachers need to view the school and learning as strongly linked to the struggle for a better quality of life for all. The schooling experiences of learners need to allow for the construction of a society free from exploitation of any form, or dominance of one group over another. Teachers need to have an awareness of how they may actually be perpetuating injustice and therefore always be reflective of the methods or pedagogy that they administer in the classroom. According to Bartolomé (2004) teacher education curricular needs to be infused with critical pedagogical principles so as to adequately prepare teachers to recognise ideologies and practices that are potentially harmful to learners.

Conclusion

Teachers were shaped by their experiences of social (in)justice, which contributes to their role in the classroom. The motives and values that these teachers hold influence their practices in the classroom. They are passionate about what they do and believe that they have a significant role to play in the lives of their learners. There is a strong sense of care and nurturing that these teachers try to offer to their learners in the hope that it will nurture and guide them in making good choices for their lives. The teachers uphold and favour values of compassion, tolerance, equity, empathy, and democratic choice. There is a strong belief that quality education can uplift society and create positive change. All teachers believed they play a critical role in the personal and academic growth of their learners and acknowledged the potential role they possibly play as agents of individual and social transformation. Curriculum demands and contextual factors for some made the enactment of social justice pedagogy challenging. Language was highlighted as a key area where learners were disadvantaged in the learning process and support was needed. While the teachers do not yet overtly perform the role of change agents, they appear to understand what it means to be agents of social justice.

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An Investigation of Deputy Principals' Views Regarding Female Principals' Managerial and Leadership Practices in Secondary Schools in Kenya

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Abstract

This study sets out to investigate the views of deputy principals' views regarding female principals' managerial and leadership practices in secondary schools in Kenya. The study involved twenty-seven deputy principals purposively selected from twenty-seven different secondary schools. Data was collected using questionnaires. The resulting data was analysed using SPSS (Statistical Package for Social Sciences). The result indicates that 81% of deputy principals scored female principals favourably in the following aspects of managerial and leadership practices in secondary schools: setting of learning targets and goals, enforcing of order and discipline, carefulness in the utilization of resources, offering direction on how the mission of the school can be achieved, clarifying and promoting mission of the school and acting collaboratively with teachers to implement the mission of the school, exposing new recruits to intensive induction, exposing new recruits to the social culture of the school, acting in collaboration with teaching staff, organising staff development programmes to empower them cope with change, facilitation of attainment of school goals, promotion of consensus and democracy in decision making and sharing of innovative knowledge with teachers. The findings indicate that deputy principals judged the female principals' managerial and leadership practices positively.

Keywords: deputy principals, female principals, secondary schools, managerial, leadership practices, Kenya

Assessing the Contributions of Parental Involvement in Secondary Schools in Kenya

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Abstract

Parents get involved in secondary schools through board of management (BOM), Parents Teachers Association (PTA), Annual General Meeting (AGM) and class representatives. This study set out to establish contributions parents make through their involvement in the life of secondary schools in Kenya. The study was guided by a quantitative research design and employed survey questionnaires to collect data. Seventy-nine (79) school principals were purposively selected and involved in this study. The resulting data were both quantitative and qualitative nature. Quantitative data was analysed using SPSS (Statistical Package for Social Sciences) and qualitative resulting from open-ended comments was thematically respectively. The results indicate that parental involvement contributes hugely to the life of the school as follows: improves teachers-parents relationships (47%, n=79), improves transparency (49%), improves accountability (49%), improves school effectiveness (39%), improves efficiency (37%); increase in resources mobilization and utilization (42%). The interpretations of the findings indicate that between one third and half of the participants agree that parental involvement in the selected secondary schools in Kenya contributes positively to life at school.

Keywords: parents, involvement, secondary schools, contributions, Kenya

Factors Influencing Digital Customer Experience Transformation in the Retail Industry

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Abstract

Retailers are losing ground to fellow competitors as they fail to meet customer expectations. With customers spread across multiple markets, locations, and platforms, having the right product at the right time has never been more important. This study investigates the technological, organisational, and environmental (TOE) factors that influence digital supply chain. The study adopted systematic literature review to explore factors that influence digital customer experience transformation in the retail industry. The systematic literature review used content analysis to assess 80 published articles on digital customer experience from 2014 - 2019. The study adopted the TOE framework as a lens to explore factors that influence digital customer experience transformation in the retail industry. The results indicated that all three TOE framework factors influence digital customer experience transformation in the retail industry. The study results suggest that retailers must consider the possible impact of the technology based organisational and environmental factors. The study contribute to the body of knowledge to the factors that influence digital customer experience transformation in the retail industry.

Keywords: digital supply chain, customer experience, retail industry, supply chain, customer satisfaction

Introduction

Machines are taking over! The fourth industrial revolution (industry 4.0) is upon us, as seen below and this has disrupted the industry as a whole. Historically the evolution of the industry has involved optimizing processes and a shift in jobs. However, industry 4.0 brings about the advent of the Internet of Things, robotics, and complex big data analytics (Alicke, Rachor, & Seyfert, 2016). These 21st-century inventions have the capabilities to improve performance by using sensors, automation, and advanced analytics. However, the feasibility and sustainability of these digital technologies are not always clear.

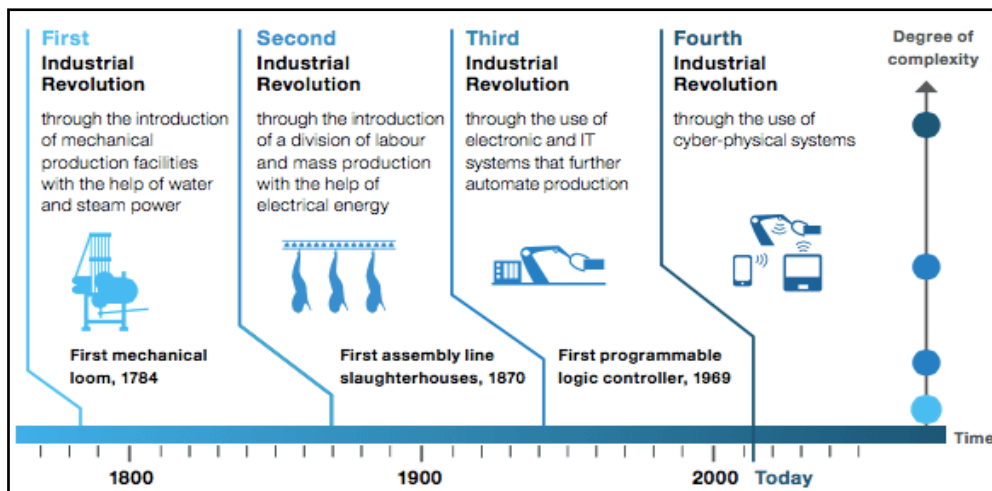


Figure 1: The journey of the Industrial Revolution, adopted from Morrissey (2018)

The 4th industrial revolution (Figure 1) sees technology changing the way we live and work (Moavenzadeh, 2015). The changes see the growth of digital ecosystems, the transformation of industry operations, and the transformation of the supply chain. Traditionally supply chain is seen as the moving of products through the entire value chain, from sourcing to getting the final product to the customers (Ivanov, 2018). Ensuring that raw materials, transformation, and delivery of the product flow through the different channels (Esfahbodi, Zhang & Watson, 2016). It has since evolved and digital technology can support the supply chain. Digital supply chain boasts the potential to improve customer experience. It hinges on a worldwide makeover of the process with the inception of digitalization and the Internet (Tjahjono, Esplugues, Ares, & Pelaez, 2017). This is a welcome transformation as currently, there is a failure to meet the retailers' need for a seamless process and visibility, which negatively influences the customer experience.

Customer experience is the inner and personal response customers have when they interact with the business (Schwager & Meyer 2017; Mishra, et al. 2017). Retailers value this, as they must provide goods and services to their consumers at a given time and place (Chavez, Yu, Jacobs, Feng, & Mengying, 2017). Otherwise, they risk losing their customers to competitors and bad publicity. Most retailers fail to provide a smooth and unified customer experience in the last mile of the process (Wright, 2018). This speaks to the supply chain, which digital technology has the capabilities to optimize.

The traditional retail supply chain isolates processes and works in a silo-based environment which often makes it inefficient (Price Water House Cooper, 2016). This leads to issues like, orders delivered late, loss of sales, customer dissatisfaction, and no transparency, which negatively influences the customer experience. Inventions in quicker delivery are a necessary investment, given that consumers have higher expectations, and satisfying them will increase market share (Wright, 2018). Inefficient supply chains cause delays in deployment and lengthy lead times will affect the delivery time. Forbes conducted a survey that identified that 86% of customers would pay more for an improved customer experience, yet 1% of state suppliers already meet

their needs (Crandell, 2019). The need for a better customer experience is apparent. Poor warehouse management systems begin this knock-on effect, which affects final delivery times. The visibility of orders as they move through the supply chain is of paramount importance as retailers can plan around that information and make contingency plans if need be (Nash, 2014). With the advent of digital technology, retailers can enhance the customer's experience, moving from inefficiency and sub-standard services that drive away customers.

Poor customer experience will cause any business to lose customers. With a wide variety of alternatives, organisations must consider using digitalizing their supply chain. While such solutions are available, they are not always viable. There are technological, organisational and environmental factors to consider. Although a solution may seem imminent, these factors taken into account. These factors often hinder the implementation of the digital supply chain. Careful consideration made as retailers consider the implications of the digital supply chain. Hence, the research objective is to explore factors that influence the adoption of a digital customer experience transformation in the retail industry. What factors influence the adoption of a digital supply chain to improve customer experience in the retail industry?

Literature Review

Industry 4.0 is said to have originated in Germany to optimise processes, it is also known as the Internet of things or smart industry (Tjahjono, Espluguesb, Arec, Pelaez and Pelaez, 2017; Bukova, Brumercikova, Cerna & Drozdiel, 2018; Kovacs, 2018). This 21st-century invention has brought with it an innovation that has improved business processes. Its disruptive nature forces firms to rethink the design of their supply chain (Alicke et al., 2016). This is to keep up with emerging technologies and trends. These are what make organisations stand out and meet the ever-increasing demands of the 21st-century customer. Industry 4.0 brings with it numerous benefits that make businesses more successful (Cheng & Foley, 2018; Naveed, Watanabe, & Neittaanmäki, 2018; Yesner, 2017). The major benefit being visibility throughout the whole supply chain. However, there is a dark side to it that Kovacs draws on in the article, "The dark corners of Industry 4.0" (Kovacs, 2018). This article touches on security issues and the implications of automation. Hence, while new technologies optimise existing processes, concerns related to security of the digital economy still exists.

Digital Economy

The strong interconnection of innovations is set to digitize the economy. A digital economy can be defined as an economy based on information technology (IT) and the internet (Vaidya, Ambad, & Bhosle, 2018). A report showed that transformation in industry and infrastructure are driving the digital economy as people adapt to this new way of life (Schneider Electric, 2019). The technological shift has driven a change to digital products and services (Naveed, Watanabe, & Neittaanmäki, 2018). This coupled with the abrupt progression of the Internet has activated the digital economy in a way that has disrupted businesses and daily activities (Watanabe, Tou, & Neittaanmäki, 2018). The digital economy is disrupting industry norms and its

implications go everywhere. The major focus is placed on transmitting the various social and economic activities by using the Internet-based domain which encompasses e-commerce, e-learning, and e-government (Berdykulova, Sailov, Kaliazhdarova, & Berdykulov, 2014). These factors touch on all functions within an organisation, from operations through to finance and the other departments, but for the sake of this study, the focus will be on digitalizing the supply chain.

The Digital Supply Chain

Traditionally, the supply chain is seen as moving through the entire value chain, from sourcing, all the way to getting the final product to the customers (Ivanov, 2018). The digital supply chain disrupts nearly all the areas of traditional processes. These disruptions bring about improved operational efficiencies, which allow the organisation better serve its clients. The digital supply chain brings transparency, efficiency, and innovation (Harrington, 2017; Agrawal & Narain, 2018; Wright, 2018). By being more transparent, gives customers visibility of their product, which currently is a basic demand from customers. It also helps them plan better. Furthermore, efficiency and innovation must be driven from within the organisation to reduce costs, wastage, improve quality, and ultimately better serve the end-user (Rodriguez & Da Cunha, 2018). Firms that effectively digitalize their supply chain digitalization see great benefits. Accenture, a pharmaceutical manufacturer who boasts over \$10 billion in annual sales revenue, saw themselves save over \$387 million in their production and supply processes by leveraging their end-to-end proficiencies utilizing a digital supply network (Moavenzadeh, 2015). This attests to the firm being able to have a superior product or service delivered and therefore the customer experience is seen as improved.

Customer experience

Customer experience is what sets businesses apart from their competitors. It can be further defined as incorporating each facet the firm offers, from the quality of customer care, promotion, wrapping, service features, ease of use, and reliability (Lemon and Verhoef, 2016). The journey that the consumer goes through must be pleasant enough for them to want to endure it again. In recent times, it is seen as a priority to create a positive customer experience (Lemon and Verhoef, 2016). This stems from the interconnectedness of today's customers where social media and the internet at large can make or break the business. Therefore, by optimizing the supply chain, the organisation has the means to provide superior service.

Inventions in faster and seamless delivery help retailers gain market share (Wright, 2018: 43). While from a marketing and individual customer perspective, socio factors are vital considerations (Ordenes, et al., 2014; Yakhlef, 2015; Bèzes, 2018). A 2017 study by Maklan, Antonetti, and Whitty, (2017) on the Royal Bank of Scotland came down to four essential aspects to better manage customer experience. These being customer experience itself, cost, revenue, and process improvement. These elements are seen from varying points of view, yet have a massive bearing on measuring customer experience. This study considers these factors from a broader organisational perspective and the variables can therefore become even greater. While literature from

a supplier-retailer perspective in improving Cx is limited, Lemon and Verhoef, (2016); Cao, (2018); Wright, (2018), concur that shortening delivery times is a vital aspect of improving Cx for retailers. This is often the challenge for warehouse management systems used by retailers in the industry.

Related Studies

Technology has been seen to be tool retailers have used to improve their customer experience. The use of customer feedback saw Maklan, Antonetti, and Whitty,(2017) draws learnings from the bank of Scotland using customer feedback. While Rodriguez, Campdesuner, Vidal, and Vivar, (2017) used Big Data, and Cao, (2018) utilized e-commerce platforms to research fashion retailers. These studies drew on models that measured external customer satisfaction. This enabled them to optimize their processes thus improving their service delivery. While the study by Panigrahi, Kar, Fen, Hoe, and Wong (2018) focuses on the increased customer expectation, where retailers have been seen to explore cost reduction techniques to enrich customer experience and satisfaction. This study used a problem-driven content analysis methodology to reach its conclusion. Moreover, this study utilizes the TOE framework to explore the technological, organisational, and environmental factors, which affect the adoption of the digital supply chain in the pursuit of improving customer experience.

T.O.E Framework

The Technology-Organization-Environment (TOE) framework was originally developed by Tornatzky, Fleischer, and Chakrabarti in 1990 (Rahayu & Day, 2015). It is based on these three factors to assess the adoption of innovation. This model, although it was developed nearly 30 years ago, its dynamic nature and inclusion of new factor as time has gone is what makes it appropriate for this study. TOE is proven to be a powerful lens in understanding the technology adoption process (Cruz-Jesus, Pinheiro, and Oliveira, 2019). It has been used successfully by several authors in recent times including, Rahayu and Day, (2015); Tsou and Hsu, (2015); Aboelmaged and Hashem, (2018); Cruz-Jesus, Pinheiro, and Oliveira, (2019), showing its relevance. While it hosts numerous benefits, it is said to not consider individual factors that affect employees and also managers (Rahayu & Day, 2015). Therefore, to mitigate this, this study will also consider some individual factors within its exploration of the technological, organisational and environmental factors affecting the adoption of the digital supply chain to improve customer experience. Below is an overview of framework.

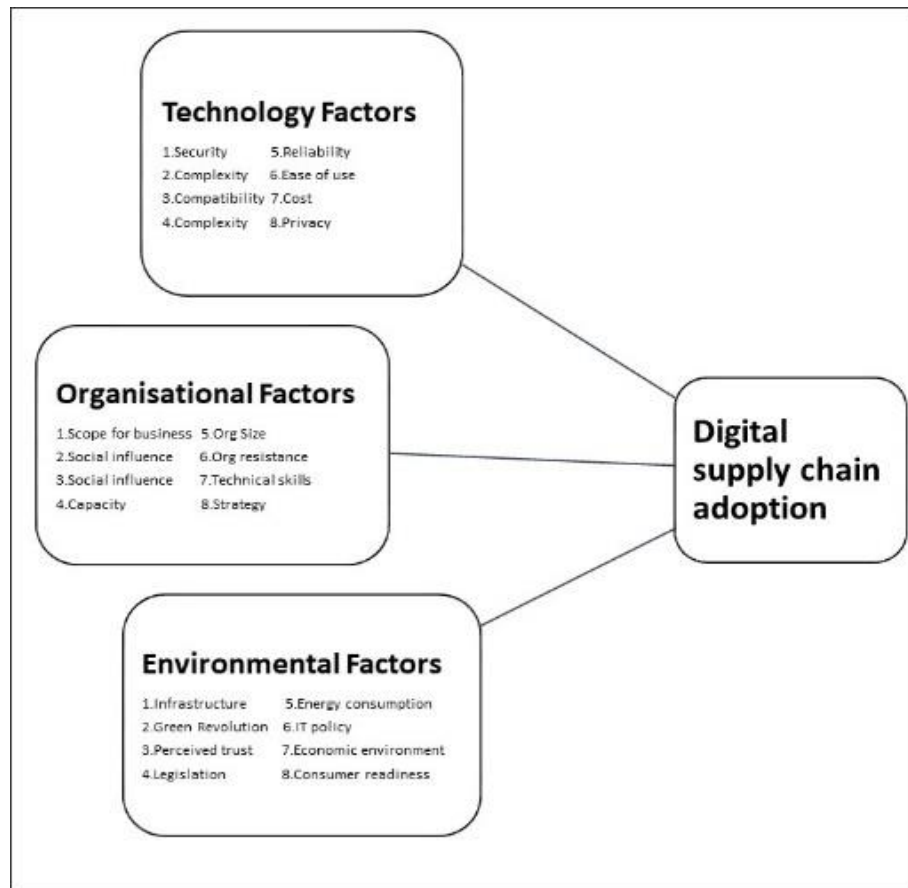


Figure 2: Adapted from(Gutierrez, Boukrami and Lumsden (2015)

Technological Factors

Several technological factors must be considered when adopting the technology. Security and privacy are major talking points in recent times as data is loaded on cloud servers. Subramanian and Abdulrahman, (2017) cite (Bose, Luo, and Liu 2015; Morsy, Grundy, and Müller 2015) who concur that the adoption of cloud servers pose a threat to the security of businesses data. Technologies like Radio-Frequency Identification (RFID), Smart Sensor Technology (SST), to mention a few, require specialist consultants and engineers to aid implementation (Abhari and Abhari, 2019). This sentiment is shared by Abhari and Abhari, (2019) who also weigh in on the availability of such skills, complexity hardware, and software costs, compatibility, ease of use, service quality and reliability, and the cross-technological function of digital solutions in developing countries. Finally, the cost factor is one that cannot be ignored, especially in developing countries which Agrawal and Narain, (2018) weigh in on. On an individual basis, the ability to use this technology could be limited as employees could see it as hugely complex or as a threat to their future.

Organizational Factors

Retailers have their dynamics to consider. These include organisational size, organisational resistance, norms, the organisations mission, social influence, and the scope for business (Cruz-Jesus, Pinheiro and Oliveira, 2019). For the adoption of technology, firstly the technical skills within the business are key (Larson & Chang, 2016). This goes hand in hand with the capacity and quality of their systems. Factors

to especially consider are, how user-friendly they are, availability, dependability, response time, and their adaptability (Hung-Joubert & Erdis, 2019). Other researchers focussed largely on the financial aspect of the business (, Esfahbod et al., 2016); Cao et al., 2017). Drawing on not breaking the bottom line as a priority. Most importantly, Cruz-Jesus, Pinheiro, and Oliveira, (2019) state that without the support of top management, no strategy will succeed.

Environmental Factors

The environment in which a retailer operates dictates most of its operations. Shifts in the business environment, have meant that to remain relevant, businesses must not only focus on what happens within their business but the market as a whole (Taherdoost and Brard, 2019). The factors to consider include the IT policy, energy consumption, the Green revolution, consumer readiness, and available infrastructure. A major talking point currently is adopting environmentally friendly processes (Hottenrott, Rexhäuser & Veugelers, 2016). Governments have also been seen to adopt such policies into their legislation which Woodard, (2016) and Sabolić, (2018) allude to in their articles.

Method

This study utilises the quantitative content analysis method. This method enriches research by identifying the occurrence of thematic or rhetorical patterns and allows for one to examine numerical data by statistical inference (Boettger and Palmer, 2010). The data for the research will be collected using a desk research technique which will see the use of existing literature, also known as secondary data. Data collection follows the below guide, *Table 1*, by Siddaway (2014). The data collected will be analysed by the PSSP tool, which incorporates graphs and tables to establish relationships between variables. The data must be converted from qualitative to quantitative to make it more meaningful and quantifiable by the chosen statistics package.

Table 1: Data collection journey

No.	Stage	Application
1.	Scoping	Formulating the research question and reading up on the topic (Topic Discovery Assignment).
2.	Planning	Dendrogram and Mind mapping technique which was done in class helped come up with keywords.
3.	Identification	Utilizing Boolean technique to narrow down articles and also using a respectable database and advanced search function.
4.	Screening	Screened using the appearance of keywords in the title and/or abstract.
5.	Eligibility	Screen using date and align to subtopics, thus: Preliminary Literature Review Framework.

Unit of analysis

This is typically known as the unit of observation and also referred to as the what of the study (Babbie and Mouton, 2005). The recognised problem for this study is the poor customer experience encountered by retailers. The primary question strives to identify factors that influence the adoption of technology to improve customer experience. Therefore, the unit of analysis is customer experience.

Design

According to, Nodine, (1963), a systematic literature review classifies, assesses, and combines research evidence from separate studies based on a strict procedure and makes a valued source of evidence. This design is appropriate as it makes sure that relevant research has been looked at and that a true analysis of the original studies has been made. The study is focused on the stated topic, hence this design is best suited for it. The strengths include reduced bias, a holistic view obtained from previous studies, and results. While possible limitations could be the fact that it summarises only existing literature. Sources of error include selective interpretation of the article and misunderstanding the source. Overall, given the options and available time, a systematic literature review design was adopted.

Materials

T.O.E (Technology, Organisation, and Environmental) Model as previously discussed was used as the basis of systematic literature review. The framework set the basis of how the extraction of information from the literature will be done. These three factors are seen to influence the adoption of digital technology in a bid to improve the customer experience. The research will draw out dominant themes from the overarching TOE factors as seen below.

Table 2: TOE themes to be considered

	Technological	Organisational	Environmental
1.	Security	Scope for business	IT policy
2.	Reliability	Size	Energy consumption
3.	Complexity	Resistance	Green Revolution
4.	Ease of use	Organisational resistance	Consumer readiness
5.	Compatibility	Social influence	Infrastructure
6.	Cost	Technical skills	Economic environment
7.	Complexity	Capacity	Perceived trust
8.	Privacy	Strategy	Legislation

Procedure

Journal articles were sourced from Science Direct which is a platform on Elsevier. This was the chosen source as it provided peer-reviewed articles from recognised authors. The source is highly regarded in their field and provide peer-reviewed articles from top authors. This was done using the UWC database and inputting relevant keywords. This study utilized sampling criteria which served as a guideline in article selection. Table two, on the next page, depicts the criteria that were used:

Table 3: Inclusion and exclusion criteria

No.	Criteria	Inclusion Criteria	Exclusion Criteria
1.	Language used	English	Non-English
2.	Time frame	2014-2019	Pre-2014
3.	Relation to digital supply chain	Apparent link to digital supply chain	Poor link to digital supply chain
4.	Relation to chosen keywords in the article	The occurrence of selected keywords	No occurrence of selected keywords
5.	Type of study	Peer-reviewed journal articles	Opinions and blogs

Research Results

The study utilised articles published between 2014 and 2019. As seen in figure 3 below, the majority of articles, 31%, were published in 2018. It is noted that between 2017 and 2018, 69% of the articles selected were published then, hence the dominant themes being fairly new and relate to emerging technologies.

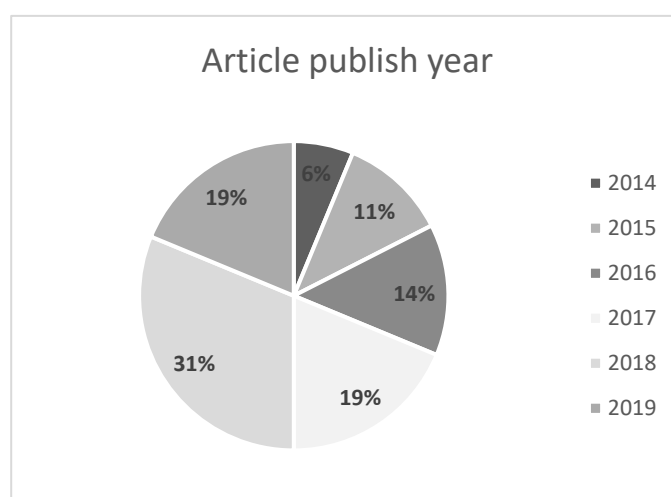


Figure 3: Articles by year of publication

Geographical Location

The articles used were published from five areas as depicted below in *figure 4*. With Asia having the largest percentage of articles at 37% and closely followed by Europe at 34%. North America, Africa, and South America at 15%, 10%, and 4% respectively. It comes as no surprise as the search criteria largely focused on countries in developing areas.

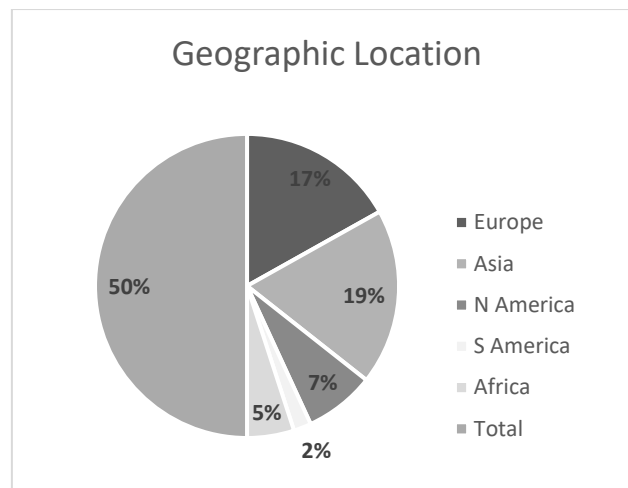


Figure 4: Articles by geographic location

Research Methods

Figure 5 illustrates the frequency of the research methods used in the selected articles. These articles were published between 2014 and 2019. Based on the results, qualitative studies are the majority at 40%, quantitative studies at 35%, and then mixed-method at 25%. The results point to qualitative studies as the most used method in exploring the TOE factors that influence the adoption of a digital supply chain to improve customer experience in the retail industry.

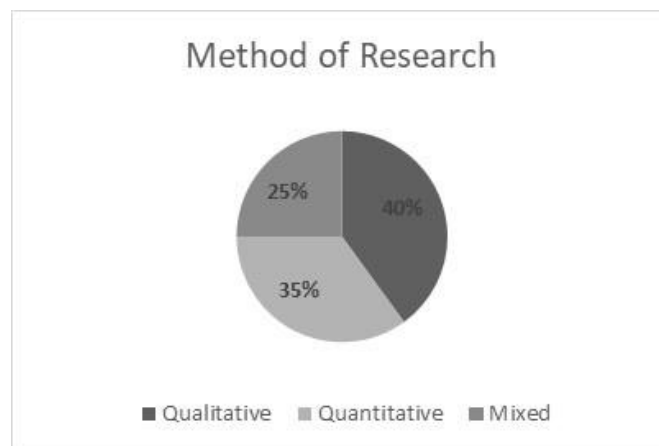


Figure 5: Articles by the method of research

Research Type

The below chart, *Figure 6*, illustrates the frequency of research types used in the selected articles. The results point to systematic literature reviews as the most used research type in exploring the TOE factors that influence the adoption of a digital supply chain to improve customer experience in the retail industry. Systematic literature review stood out at 40%. It is then followed by a survey at 25%, case study at 16%, other types at 11%, and then questionnaires at 8%.

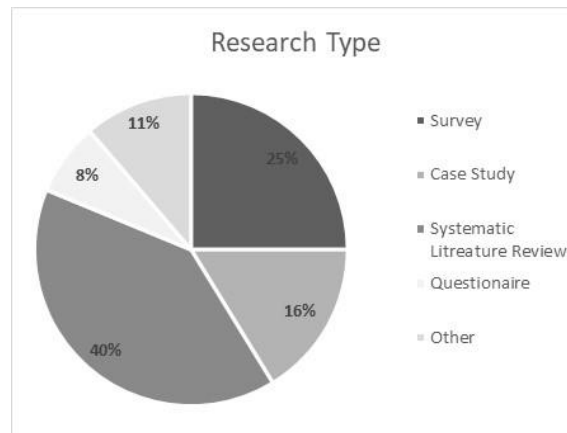


Figure 6: Articles by research type

TOE Factors

The three TOE factors each had eight themes identified. A literature review matrix was used to code the data. This involved reading articles and counting the occurrence of the theme in the chosen data set. This enabled the conversion of qualitative data to quantitative data.

Technology Factors

The factors that were explored were security, reliability, complexity, ease of use, compatibility, cost, complexity, and privacy. The presence of these eight words was searched for in the 80 research articles mentioned. Figure 7 depicts the results which show cost as the most prevalent theme at 81%, followed by complexity at 73%, and then privacy at 54%. Security and skills availability then followed at 51% and 52% respectively. While to a lesser degree, ease of use, feasibility, and compatibility were the least prevalent at 45%, 36%, and 26% respectively.

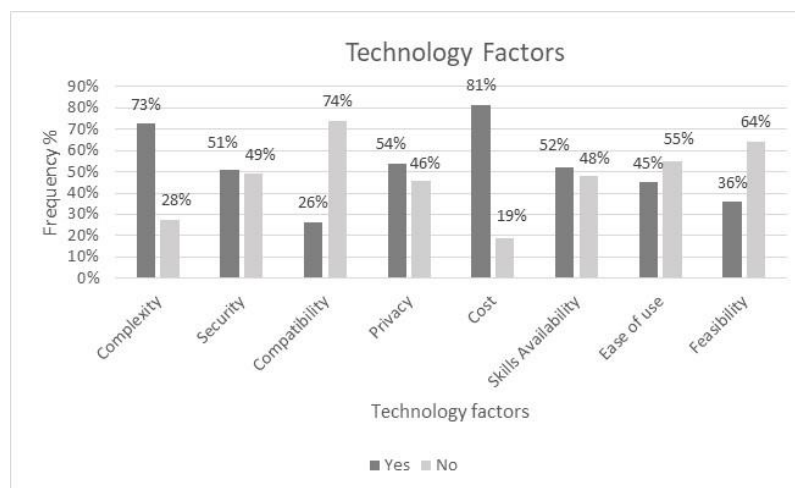


Figure 7: Frequency of Technology Factors

Organisational Factors

The organisational factors that were explored were scope for business, organisation size, organisational resistance, social influence, technical skills, capacity, social influence, and strategy. A search for the occurrence of these eight words was done in the 80 research articles mentioned. *Figure 8* below depicts the results which show

social influence with the highest frequency at 75%, strategy at 73%, and technical skills at 65%. Scope for business at 56% and top management support 53% are in the mid-section. While, organisation size, capacity and organisational resistance are the final three at 49%, 39%, and 33% respectively.

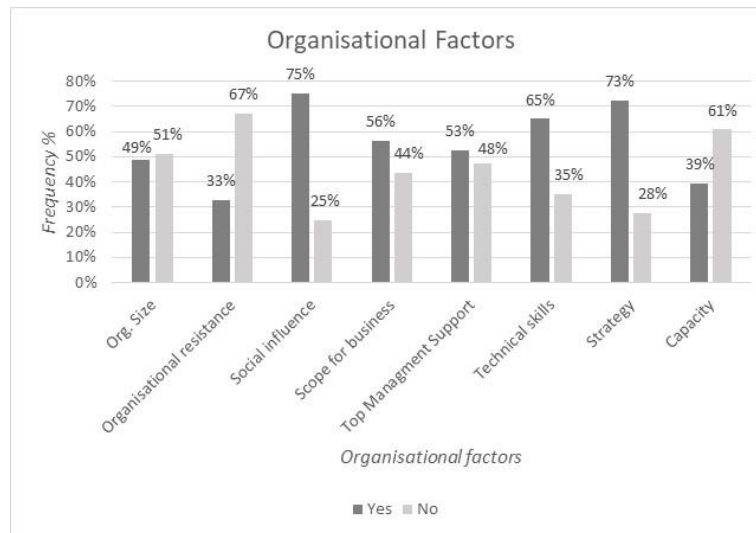


Figure 8: Frequency of Organisational factors

Environmental Factors

The environmental factors that were explored were IT policy, energy consumption, green revolution, consumer readiness, infrastructure, economic environment, perceived trust, and legislation. A search for the occurrence of these eight words was done in the 80 research articles mentioned. Figure 9 below depicts the results, which show the economic environment with the highest frequency at 72%, infrastructure at 58%, and perceived trust at 47%. Consumer readiness at 40% and legislation at 38% complete the top five. While, green revolution, energy consumption, and IT policy are the final three at 34%, 32%, and 31% respectively.

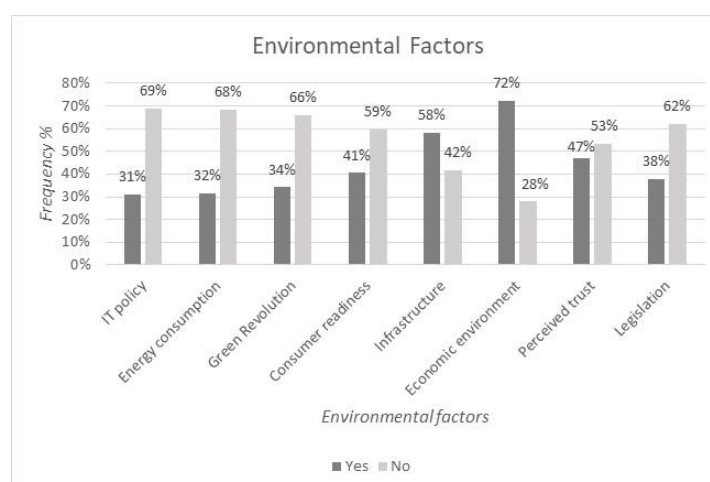


Figure 9: Frequency of Environmental Factors

Discussion

Results showed that there was an increase in research from 2014 to 2019 in the use of the digital supply chain in improving customer experience. There was an increase in articles published on the topic, at the time of data capture, 19% was at the halfway point of 2019. This comes as no surprise due to the rate of new findings and in light of the 4th Industrial revolution. The region with the highest percentage of articles published in Europe, closely followed by Asia and this is a matter of resources. Africa and South America rank very low due to this. The majority of the articles coded in the study utilised were qualitative. Lastly, the prevalence of systematic literature reviews as a research type gives a broader view as the findings of several researchers are investigating.

Retailers must consider technological factors when adopting a digital supply chain to improve customer experience. The results suggest that cost, complexity, and privacy are the most dominant technology themes. The initial expectation from the literature was for security and privacy to be the highest-ranking themes. However, cost and complexity surpassed them. Given that these two are fundamental themes and that developing countries were used as a selection criteria this was not entirely unexpected. Compatibility showed a high level of significance, given that majority of studies were based in developing countries, and this substantiates their inability to embrace a digital supply chain to improve customer experience. Hence the increase in research around this topic in recent times.

There are organisational factors retailers have to consider when adopting a digital supply chain to improve customer experience. The results from this study drew out social influence, organisational strategy, and a lack of technical skills as dominant organisational themes. The high demands, availability, and use of data have demanded that organisations better manage their customer and supplier engagement (Moorthy et al., 2015). This trend from the literature substantiates why social influence was the highest-ranking organisational theme. Technical skills and strategy within the organisation also leverage the technology hence they were the next two dominant themes.

Finally, there are also environmental factors retailers must consider when adopting a digital supply chain to improve customer experience. The economic environment and infrastructure were seen as the dominant themes in the results. This can be put down to the fact that the criteria of article selection, developing countries, was a determining factor. This theme along with four others had a greater frequency than the "green revolution". This speaks to organisations using more environmentally friendly means of operation and, surprisingly, this theme ranked in the lower half. This could be attributed to the use of "green revolution" as a keyword that is rather ambiguous. However, energy consumption having the second-highest frequency aligns with recent trends and literature. While the economic environment's high frequency is related to the selection of articles from developing countries were large, the economic environment is harsh.

Conclusion

Poor customer experience hampers operations, and a digital supply chain offered solutions, which came with various challenges. Given the breadth of alternatives available, in reality, they are not always viable. The research managed to bring out dominant themes in each of the TOE factors. In the Technological factors, complexity, privacy, and cost stood out. While in the Organisational domain, strategy, social influence, and technical skills were the three most dominant themes. Then in the environmental factors, economic environment, infrastructure, and perceived trust were considered the most dominant themes. It was interesting to see the dominant themes stem from recent trends with exception of cost and economic environment, which come as no surprise given the high implementation cost of digital solutions. The research highlighted the difficult challenge of striking the balance between maximizing profit and incurring costs to improve customer experience.

This paper seeks to help retailers to understand the factors that affect digitalizing the supply chain in an attempt to improve the customers' experience. Given the hype Industry 4.0 has caused, the findings are an effort to help organisations make an informed decision in regards to implementing a digital supply chain. Consideration of the TOE factors enables the retailer not to ignore the perceived benefit of the digital supply chain, but consider the technology they seek to use their organisational factors, and the environment in which they operate to assess if their efforts will indeed improve the customer experience while still meeting its goals. In practice, this paper contribute on improve the digital customer experience. While in theory, it can add to the body of knowledge in the emerging area of customer experience, which has limited literature on it.

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Factors Affecting Digital Transformation in the Retail Supply Chain

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Abstract

The digital transformation, introduced by the fourth industrial revolution, has significantly transformed the value proposition of supply chain organisations. However, there is limited extant literature based on factors that influence the adoption of digital supply chain within the retail industries. The objective of the study was to explore the factors that influence digital transformation in retail supply chain. The study adopted systematic literature review of all pertinent articles, published during the period 2010-2019. The study adopted Technology-Organizational-Environmental (TOE) framework as a lens to explore factors that influence the adoption of digital supply chain within the retail industries. The study results suggest that most technological factors influence the adoption of digital supply chains within the retail industries compared to organisational and environmental factors. The study contribute to the body on knowledge on the factors that influence the adoption of digital supply chain within the retail industries.

Keywords: digital transformation, supply chain, adoption, TOE framework, inventory management, retail industries, fourth industrial revolution

1. Introduction

Chiu (2019) defined traditional inventory management as the use of information management features, often stored in isolation forgoing immediate integration into the scope of the company. As a result, tantamount of organisational management inefficiencies arise such as untraceable record of data due to silo-based tracking, and colossal amounts of unstructured data. Traditional supply chains do not keep abreast with the changing environmental demand for optimization and innovation, while executing with accuracy and expenditure minimization.

Sunil and Sameer (1998) critically underpins the fundamental issue in the management of inadequate inventories, which emphasise not only inventory 'stockouts' but wasted obsolete inventory as well. These issues spread across functional activities of the organisation whether it be the logistics, unrecalled

products, etc. There are numerous reasons responsible for this error handling, but the frequent intercepting outlier that has led to the investigation of this study is traditional inventory management inability to compete with big data. In the modern-day societal adoption to the 4th Industrial Revolution, where technology-based market competition has progressively grown, retail organisations are battling to strengthen their competitive capacity which is detrimental to manual inventory management.

Research conduction by Chen and Xie (2009) favours the implementation of digital supply chains, which enables managers to achieve enhanced inventory control and operational efficiency. In general authors such as Bahroun, Campagne and Rached (2016) debate that warehouses significance resides in the movement of product information to retail supply beneficiaries. Non-empirical evidence suggests that warehouse inventory is the integral component of current assets in retail organization, as it comprises of high capacity inventories; a considerable amount of funding dedicated to management. Dimitrios (2008) noted inventory management systems deserve more than adequate attention. Nguegan (2017) argues that major negative effects such as unsatisfactory.

2. Literature Review

The 3rd Industrial revolution focused on the automation of single machines and manual processes which effectively allowed supply chains to carry out traditional inventory models of mass production. However, the fourth industrial revolution has shifted the focus onto 'customer pull' influence on inventory demand. This revolution has brought about the need for the end-to-end digitisation of all physical assets and integration into digital ecosystems with value chain partners. Generating, analysing and communicating data generated by customer involvement seamlessly underpins the gains promised by the fourth industrial, which integrates real time data into the inventory scope of retail industries. Figure 1 below shows the impact of digitalization on supply chain management.

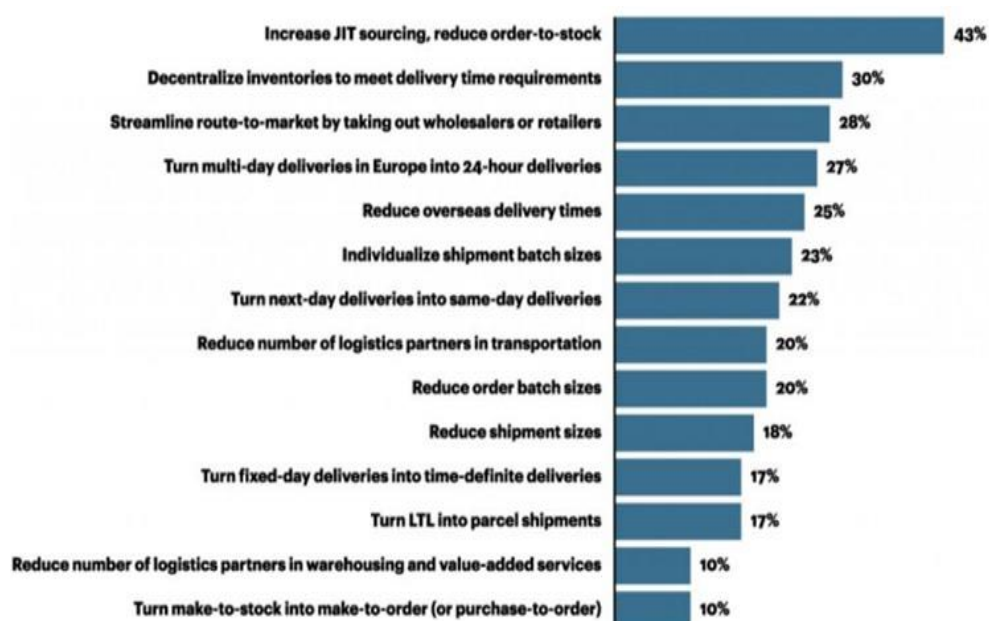


Figure 1: Impact of digitalization on supply chain management (Chung et al., 2018)

Technology Factors

According to the Technology-Organisation-Environment (TOE) framework, technology factors encompass both internal and external technology at the disposal of the organization (Ngah, Zainuddin & Thurasamy, 2017). Furthermore, the innate attributes i.e. complexity, usability and learnability of a particular technology plays a pivotal role in its adoption (Ngah et al., 2017). Currently, the companies' internal processes, product components, communication channels and all other key aspects of the supply chain processes are undergoing an accelerated digitalization process through 4th industrial revolution concepts such as SMAC (Social, Mobile, Big Data Analytics and Cloud computing) (Geisberger & Broy, 2012). However, if customers and other stakeholders to these processes within retail industries perceive the adoption of such technology to be complex, this lack of trust and co-operation can directly affect the adoption of digital supply chains. For instance, according to Michel (2017), cloud-based systems and analytic solutions that incorporate flexibility and agility into the management of inventory and customer demand would be effectively inefficient to adopt if retail industries learnability are relatively low. However, authors Mell & Grance (2011) counter this argument by discussing how this configurable computing resource requires minimal management effort or service provider interaction; which once again focuses on perceived complexity making the adoption of digital supply chains less than probable.

Another barrier to the adoption of digital supply chains within retail industries is the financial capacity organisations possess. According to the Harvard Business Review (2015), retail industries may forgo the deployment of SMAC-IT technologies due to the high levels of expenditure incurred. Despite digital supply chains ability to reduce implementation and management costs around inventory, retailers adopting to a digital transformation commit to a high investment as they transition from their existing systems which are often predominately paper-based (traditional supply chain).

This capital venture of course varies from installation, acquiring new resources, start-up costs etc (Ghobakhloo et al., 2012). Essentially, this implies that the cost of technology can have a prohibiting effect on the adoption of financial technology within retail industries (Ghobakhloo et al., 2012). Adoption of a digital supply chain also includes implementing Internet of Things within retail industries, which exposes them, like many cloud services-based companies, to security risks. Cyber intrusion is a growing concern for many retailers in developing countries who lack the infrastructure for responsive security protocols and tools. Potential security vulnerability like this diminishes the likelihood of digital supply chain adoption. However, Balakrishnan and Cheng (2005) highlights that collaborating with cybersecurity providers could bolster retailers defence against threats.

According to Rogers (2003), relative advantage refers to the degree to which a technological innovation exceeds the tangible and intangible expectations of the initial idea. Moreover, Wang, Li and Zhang (2015), states that organisations are more likely to adopt an innovation if they observe the relative advantages associated with that

particular innovation. Rogers (2003) defines compatibility as the extent to which a technological innovation consistently aligns with the values of the incumbent organisation. Thus, it is more likely for an organisation to adopt an innovation if it consistently aligns with the incumbent organisation's values, practice, scope and IT infrastructure (Wang et al., 2015). Figure 2 shows the relative advantages and opportunities of digital supply chain (Bagri, Ghai, Oka & Venkatesan, 2017).

Collaborative Mindset for Digital

Collaboration Type	Key Collaboration Areas leading to higher value creation	Select Examples
Supplier – Supplier	<ul style="list-style-type: none"> Coopetition (Collaboration with competition) 	<ul style="list-style-type: none"> Microsoft and Intel tie up leading to a synergistic growth in sales for both software as well as the chips Google and Mozilla working together (Google funded Mozilla's free, open-source Firefox web browser – a Chrome rival – to limit the influence of rival browsers, Microsoft's Internet Explorer and Apple's Safari) Refrigerants Naturally is a non-profit that was established by fierce competitors Coca-Cola, Pepsi Co, Red Bull, Unilever and others to work jointly to develop sustainable refrigeration technologies to combat climate change and ozone depletion
Supplier – Retailer	<ul style="list-style-type: none"> Revenue Margin Enhancement Process Improvement Cost Reduction Sharing of POS data real time Creation of ecosystems 	<ul style="list-style-type: none"> Kellogg with Tesco: Examining real time POS data to identify purchasing patterns at certain Tesco supermarkets. Adjustment in its shipping schedule helped Tesco recapture more than £2 million (US\$4 million) in lost sales and improve customer satisfaction Kraft Foods Inc. used U.K. food retailer J Sainsbury PLC's POS data to improve in-store availability of cheeses during promotional periods Apple ties up with Reliance Retail for special offers and plans
Retailer – Retailer	<ul style="list-style-type: none"> Extended networks New channels 	<ul style="list-style-type: none"> Walmart plans tie ups with Flipkart, Amazon to tap the online retail opportunity Paytm ties up with offline electronic stores to list them on their online platform
Retailer – Customer	<ul style="list-style-type: none"> Co-creation of consumer focused content Crowdsourcing for innovation 	<ul style="list-style-type: none"> LEGO Ideas is an online community where members can discover creations by other fans and submit their own designs for new sets
Retailer – Digital Ecosystem Player	<ul style="list-style-type: none"> Consumer centric solution development 	<ul style="list-style-type: none"> Walmart and Google tie up for voice controlled shopping - Google, will offer hundreds of thousands of Walmart items on its voice-controlled Google Assistant platform

Figure 2: Collaborative Mindset for Digital (Bagri et al., 2017).

Organisational factors

According to the Technology-Organisation-Environment (TOE) framework, organisational context provides a description of the characteristics (i.e. organisation size and structure) inherent of the organisation that influence technology adoption (Nghah et al., 2017). An organisation cannot successfully advocate digital transformation supply chain without the direct support of executive management, who would communicate the vision of a digital transformation and its alignment to strategic objectives across departments (Maduka, Mpinganjira & Duh, 2016). It is imperative for operational change management to support programs be rolled out to address the 'fear' of complexity IoT other fourth industrial revolution technologies bring to the retail industry. Wade and Marchant (2014) highlights that without human resource mechanisms that help create additional value for stakeholders involved in digital processes, the adoption of digital supply chains within the retail industry may negatively influenced and could further lead to employee resistance. Hoberg, Krcmar, Oswald, and Welz (2015) however counter this argument by discussing managements increasing support in digital initiatives and SMAC-IT technologies.

Furthermore, management competency plays a leading role in the adoption of digital supply chains. Management executives have had renowned success creating a movement of collaborative planning and forecasting within the manufacturing industry of Amazon (Swaminathan & Tayur, 2003). However, if internet channels that

provide inventory and distribution management opportunities are not analysed appropriately by management, digital adoption may prove to be fatal to several retail industries. Technical skills have proven to be yet another factor influencing the adoption of digital supply chains within retail industries. Implementing analytics initiatives that comes from digital transformation requires data science qualifications with domain knowledge of supply chain functions (Hoberg, Krcmar, Oswald, and Welz, 2015).

Internal IT expertise are not prominent in most retail industries, especially in third world countries struggling to grow and retain these capabilities, which may inhibit companies from exploring the full potential of analytics. This could increase resistance in the adoption of digital supply chains within retail industries. However, the beneficial impact of the adoption of analytics on the supply chain performance has come out very strongly and emphatically in the research. Additionally, firm size can influence the adoption of technological innovations. According to Wang et al. (2015), large organisations are more likely to adopt innovations given that they have more financial resources to both support the adoption and mitigate any risks associated with the adoption of an innovation.

Environmental factors

The environmental factors context includes the extent to which the organisation's industry (i.e. industry structure, regulation and availability of IT vendors), customers and competitors can influence technology adoption (Ngah et al., 2017). The marketing landscape (including retail vendor capabilities) and perception of IT vendors influences the decision-making processes surrounding digital supply adoption (Alshamaila et al., 2013). If the incumbent organisation believes that it will receive IT support during its adoption and maintenance of digital supply chain solutions in retail organisations and warehouses, then this would mitigate perceived risk associated with the innovation (Alshamaila et al., 2013).

Additionally, the pressure of perceived competitive advantage of technology adoption as well as pressure from industry competitors may influence the organisation to adopt the technology (Alshamaila et al., 2013). Moreover, organisations are more likely to adopt an innovation if the incumbent organisation perceives non-adoption to result in a competitive disadvantage such as a loss of prospective clientele (Wang et al., 2015). Furthermore, Rui (2007) suggests that the interdependence and trust shared between a firm and its customers has a profound impact on its adoption of innovative technologies.

IT Policies and regulations have a significant influence on how industries interaction with data and thus directly influences the decision to adopt a digital supply chain. Digital transformation in the 4th industrial revolution has the ability to spur innovation in retail industries by making data widely available, which can be proven quite instrumental in increasing sales, inventory management, logistics etc (Van Ark, 2016). OECD (2017) highlights that the flow of data also underpins digital enabled trade of retail goods and services, as well as trade facilitation and the ability of

companies to organise production globally through global value chains (with a resulting trade in intermediate goods). Hence, policies regarding the management of data can have important implications for market openness in the digital era.

Considering that the flow of data would be recognized as an increasing a means of production embedded in retail activities, the appropriate IT Policy design and regulations needs be established to facilitate the movement of data while respecting the need for privacy and data protection. Trade policy, in the retail sector, should therefore focus on continuing to ensure that adequate safety measures are available for pursuing legitimate public policy goals while preserving the significant benefits from an open digital environment. Finally, organisations primarily serve to satisfy the needs of their customers and this inadvertently coerces the organisation to adopt new technologies despite it being beneficial to do so because of customer expectations (Alshamaila et al., 2013).

3. Related Studies

Lu, McFarlane, Giannikas and Zhang (2016) conducted an investigation, “An algorithm for dynamic order-picking in warehouse operations”, based on the adoption of IoT to address new sales channels such as online shopping and enhanced processes and systems for just-in-time procedures in the retail industry. Moreover, the study explored and mapped all the major theories that researchers have used to predict technology innovation adoption in supply chains. However, Lu, McFarlane, Giannikas, and Zhang (2016) research study differs from this study, based on factors that influence digital supply chain adoption, as this study used the TOE framework to explore and synthesize factors that affect digital supply chain adoption within retail industries.

Extensive research, by Swaminathan and Tayur (2003), hones on the expedited need for supply chains to better integrate into the digital economy. Moreover, the article addresses the need to remodel traditional supply chains to accommodate the demand for visibility, supplier relationships, distribution and pricing, customization, and real-time decision technologies that have risen to importance with the prevalence of e-business. Alternatively, another study conducted, “Impact of analytics and digital technologies on supply chain performance”, investigated how retailers and manufacturers can reinvent their supply chain models (Roy, 2018). The study employed the SCOR mode framework that provides a systematic approach to identifying, evaluating and monitoring supply chain performance, covering the four supply chain processes of Plan, Source, Make and Deliver. Nevertheless, these related studies conducted a more general study on digital supply chain adoption, where in contrast this study investigates the factors that influence of digital supply chain adoption within retail industries by using the TOE framework.

4. Theoretical Framework

The theoretical framework used in this study was the Technology-Organisational-Environmental (TOE) framework; the framework provides three specific contexts through which an organisation can evaluate the process of adopting and

implementing a technology innovation (Oliveira et al., 2011). These three contexts include Technology, which serves as a lens to view the technology factors, both internal and external, that an organisation must consider (Oliveira et al., 2011). These technology factors traditionally include factors such as complexity, availability, scalability, cost and security (Nghah et al., 2017). Furthermore, the framework suggests an organisational context, which offers descriptive measures about the organisation such as scope, firm size, technical skills, organisational readiness and resources (Nghah et al., 2017).

Finally, the Environmental context concerns the industry or business landscape of the incumbent firm that can potentially influence technology adoption and implementation, and these include factors such as industry competitors, government pressure, market structure and vendor capabilities (Nghah et al., 2017). The TOE framework was used in this study because it provides a useful analytical that can be used to scrutinize both the opportunities and threats related to the acceptance, adoption and integration of technological innovations in an organisation's business model (Oliveira et al., 2011). Furthermore, the TOE framework has a solid theoretical base, offers the researcher consistent empirical support in research study and a more holistic model as it provides researchers with an enhanced ability to elucidate on intra-firm technology innovation adoption and implementation (Oliveira et al., 2011).

5. Research Methodology

Cooper and Schindler (2014) defines a research design as a plan that stipulates the conditions for data collection and its analysis and measurement by a researcher in fulfilling research objectives or answering research questions. The study adopted a systematic literature to address the aforementioned research questions and objectives for this study, with a design consisting of a quantitative content analysis. The systematic literature review helped to establish the extent to which existing research has progressed, allowing researchers to identify relations, contradictions, gaps, and inconsistencies in the literature, and explore reasons for these (Baumeister & Leary, 1997; Bem, 1995; Cooper, 2003). Myers (2010) discusses content analysis as any technique for making inferences by systematically and objectively identifying special characteristics of messages, presented statically in frequencies.

Fundamentally, content analysis is both observational and narrative in nature and relies less on the experimental elements normally associated with scientific research. Furthermore, content analysis uses an iterative approach that can be either inductive or deductive in nature and thus, allowing the researcher to detect similar or dissimilar content in written text that will either approve or detest the theoretical construct being examined (Maree, 2007). The steps of a quantitative content analysis include developing a research question, formulating hypotheses, sampling, coding scheme development, data collection, statistical analysis, findings and conclusion (Amazon AWS, 2015).

6. Instrument Development

First, a literature search was conducted to identify all articles relevant to the research topic using key words such as “Digital Supply Chain Adoption”, “TOE Framework”, “Inventory management”, “Retail industries”, “Fourth industrial revolution”. Second, all articles relevant to the research study during the period 2010-2019 were selected. Seventy selected articles were manual coded in an excel sheet where word frequency counts to detect similarities in the qualitative data to prepare the content for categorization based on the frequency (Table 1). This served as the basis of transforming the qualitative data into quantitative data that was analysed.

Table 1: TOE factors that influence Digital Supply Chain Adoption

Technology Factors	Organisational Factors	Environmental Factors
Complexity	Organisational Readiness	Competition
Compatibility	Resource Capacity	Market Structure
Cost	Firm Size	Vendor Capabilities
Perceived Usefulness	Technical Skills	Managerial Support
Relative Advantage	Management Competency	IT Policy & Regulations
Security	Strategic Objectives	Political Dominance

Data sources and sampling

The study adopted convenience sampling, as it constituted the search and selection of articles and other literary content relevant to the study. Convenience sampling helped to select the construct characteristics of the research population and convenient to access (Maree, 2007). The sampling method comprised of searching for keywords pertinent to the research study in various scientific databases inclusive of AIS Library, SCOPUS, ScienceDirect and Taylor & Francis Online. The entries into the search engines of these databases comprised of terms inclusive of “Digital supply chain adoption”, “TOE Framework”, “Inventory management”, “Retail industries”, “Fourth industrial revolution”. Literature, from these databases relevant to the research topic were then for the period 2010-2019. The research population comprised of articles on retail industries globally that have or have yet to adopt digital supply chain.

Research Methods

The research method used in this study will be content analysis, more specifically a systematic literature review. This research methodology is flexible and capable of both quantitative and qualitative research methods. The research method for data collection will primarily be qualitative in nature as it uses convenience sampling to collect, gather and measure data by inserting keywords relevant to the research study into the search engines of selected scientific databases i.e. Science Direct, SCOPUS, AIS eLibrary and Taylor Francis Online. Additionally, content analysis allows for the historical comparison of digital supply chain adoption within retail industries, which offers valuable insights into how the major theme of digital supply chain adoption has evolved over the years (Allen, 2017). This method provides a simple and structured approach for the quantification of qualitative text that allows the researcher to view

the data through various lenses to identify patterns within the textual content that can be later categorized (McNabb, 2002).

7. Study Results

Demographic data

Articles published by year

The figure below presents the frequencies of 70 articles, based on factors that influence digital supply chain adoption within retail industries, published during the period 2010-2019. The results depict that between the years 2010-2014, a cumulative of 29% published articles whereas 71% of related articles during 2015-2019. The recorded metadata suggest a progressive inclination in research output during 2010-2014, despite the fluctuation in 2011 that then lead to a downward trough in 2012. Furthermore, the lowest recorded research output occurred in 2010 and 2012 respectively at 3% whereas the results depict a significant increase in research output during the period 2015-2019 with the highest research output occurring during 2018.

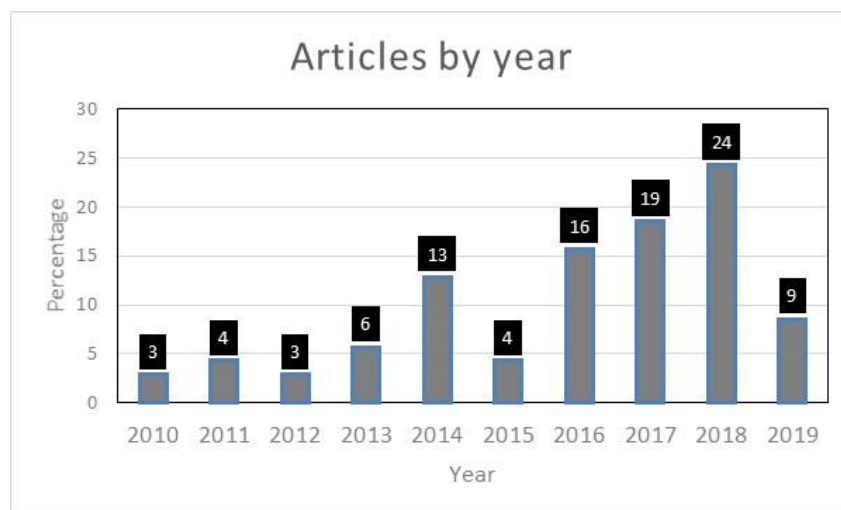


Figure 3: Article by year

Articles by Region

Figure below present frequencies of 70 articles, based on factors that influence digital supply chain adoption within retail industries, published during the period 2010-2019 by region. The results depict that Asia had the highest recorded number of published articles at 46% followed by Europe at 20% and North America at 11%. Additionally, Global had the lowest number of articles published at 4% with Africa placing second last at 19%. The frequency depicts that Asia accounts for nearly half of all research based on factors that influence digital transformation supply chain within retail industries, published during the period 2010-2019.

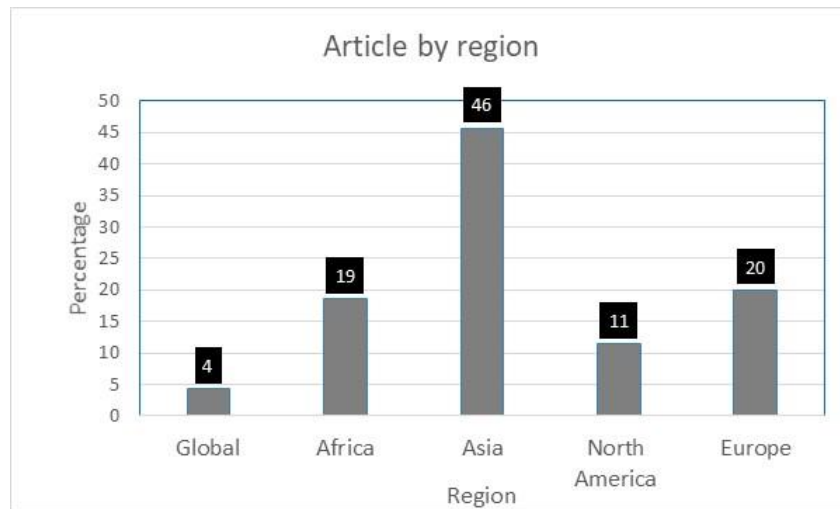


Figure 4: Article by region

Articles by Research Method

The figure below presents the frequencies of the research methods used in all 70 articles, based on factors that influence digital supply chain adoption within retail industries, published during the period 2010-2019. Results populated indicates a 53% high conduction of qualitative research studies, followed by quantitative research studies at 33% and finally, multi-methods research studies, with the lowest frequency, at 14%. The results suggest that qualitative research studies were a prominent choice of research methodology when conducting research based on factors that influence digital supply chain adoption within retail industries during the period 2010-2019.

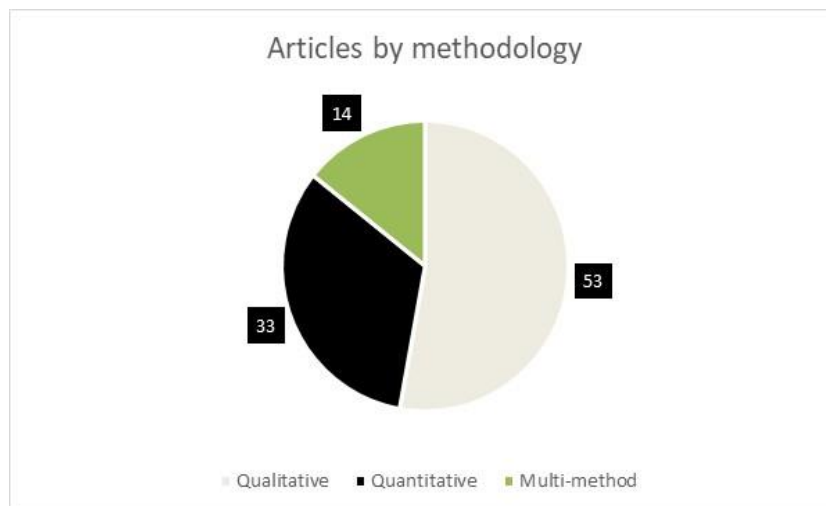


Figure 5: Article by methodology

Articles by Research Design

Articles by research type Figure below presents an illustration of the frequency of the research design used in 70 articles, based on factors that influence digital supply chain adoption within retail industries, published during the period 2010-2019. The results depict that most articles published during 2010-2019 conducted a systematic literature review at 41%, followed by surveys coming a close second at 20% and interviews placing 3rd at 14%. Furthermore, the results suggest that that conducting case study

was the lowest preferred research type as only 9% of articles, based on factors that influence digital supply chain adoption within retail industries, published during the period 2010-2019 used this method.

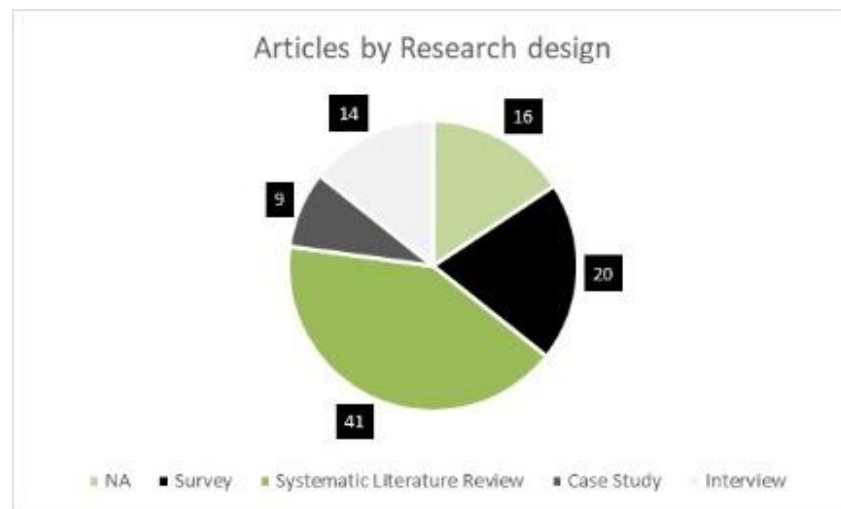


Figure 6: Article by Research Design

Articles by Framework

Figure below presents the frequencies of the research frameworks used in 70 articles, based on factors that influence digital supply chain adoption within retail industries, published during the period 2010-2019. The frameworks include the Technology Acceptance Model (TAM), the Vendor Managed Inventory (VMI) and Technology-Organisation-Environment framework (TOE). NA represents articles that did not use a framework or rather suggested their own framework. The results depict that most articles, at 60%, did not use a framework or recommended a new framework (NA). Furthermore, the results suggest that that the TOE framework was the second preferred research framework at 11%, followed by TAM at 20%. Additionally, the results suggest that the least used framework in articles, based on factors that influence digital supply chain adoption within retail industries, published during the period 2010-2019 used this method was the TAM framework at 9%.

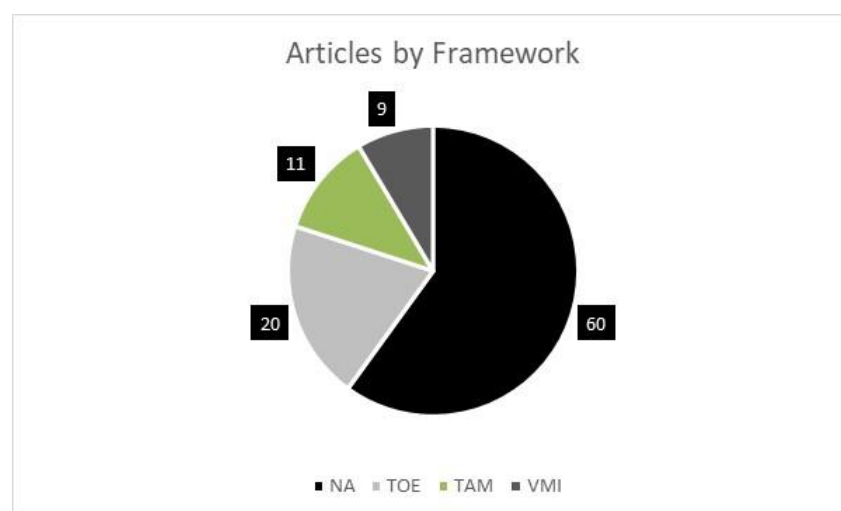


Figure 7: Article by Framework

SMAC-IT Technologies

Figure below presents an illustration of the frequency of the SMAC-IT technologies used in 70 articles, based on factors that influence digital supply chain adoption within retail industries, published during the period 2010-2019. The SMAC-IT technologies include RFID, Cloud, Artificial intelligence and IoT. The results depict that most articles, at 33%, discuss the implementation of the cloud within retail industries. Furthermore, the results suggest that retailers are adopting IoT devices over the years, coming in second to against technologies RFID and artificial intelligence. RFID and Artificial intelligence were ranked at 13% and 7% respectively as commonly cited in articles over the years.

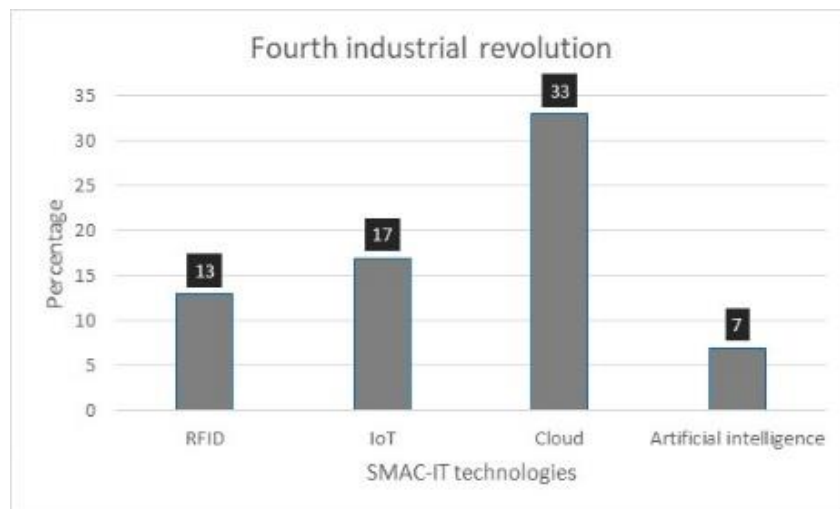


Figure 8: SMAC-IT technologies

Factors affecting the adoption of digital supply chains

This section provides an illustration of the results of the technology, organisational and environmental factors that influence the adoption on digital supply chains within retail industries.

Technological Factors

The study analysed technological factors that influence the adoption of digital supply chain within retail industries, these included factors such as: complexity, compatibility, cost, perceived usefulness, relative advantage and security and reliability. Figure below presents the results of the technological factors based on 70 articles published during the period 2010-2019. The results illustrate that relative advantage was the most important technological factor that influences digital supply chain adoption within retail at 83% of the 70 articles, followed by security at 74% and cost at 69%. Furthermore, 51% of articles discussed perceived usefulness as an influencing factor, followed by complexity at 49%. Finally, compatibility was the least discussed factor at 44% of the published articles.

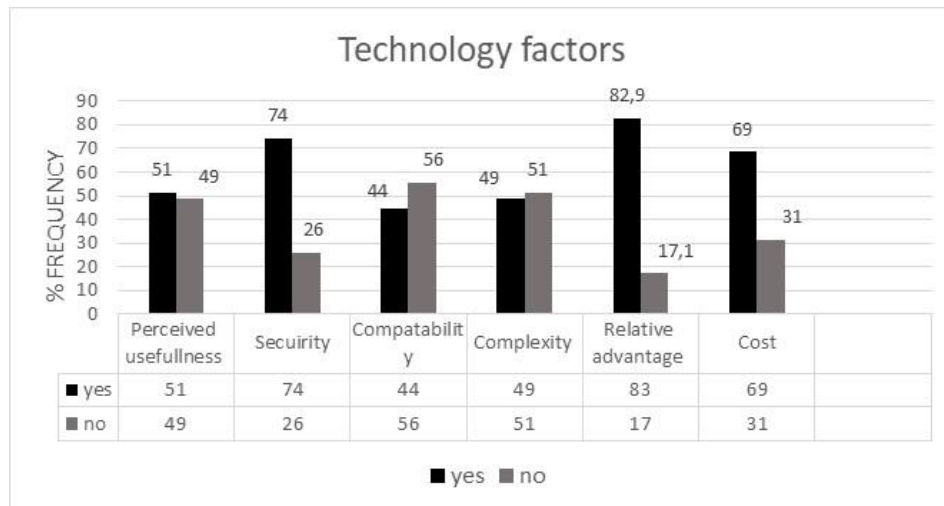


Figure 9: Technological factors

Organisational Factors

The study analysed the organisational factors that influence the adoption of digital supply chain within retail industries, which include organisational readiness, organisational resources, firm size, technical skills, managerial/executive support and strategic objectives. Figure below presents the results of the organisational factors based on 70 articles published during the period 2010-2019. The results indicate that 60% of articles discussed resources capability of an organisation as an influencing factor, followed by strategic objectives at 57% and then technical skill at 40%. Furthermore, 39% of articles discussed management competency as an influencing factor, followed by firm size at 34%. Finally, organisational readiness was the least discussed factor that influences digital supply chain adoption within retail industries at 24% of the articles.

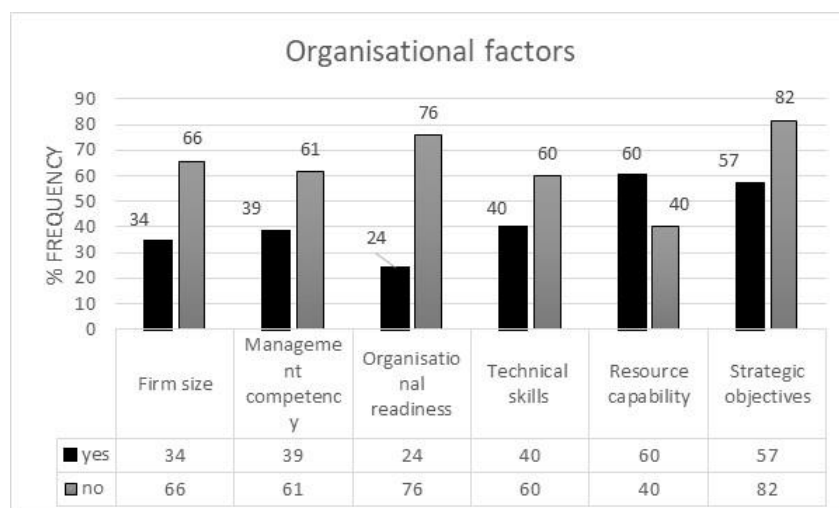


Figure 10: Organisational Factors

Environmental Factors

The study analysed the environmental factors that influence the adoption of digital supply chain within retail industries, which include government regulation, competition, IT policy/regulation, market structure, vendor capabilities and

maintenance/support. Figure below presents the results of the environmental factors based on 70 articles published the period 2010-2019. The results show that 66% of articles discussed market structure as an influencing factor, followed by competition at 51% and then political dominance at 44%. Furthermore, 36% of articles discussed vendor capabilities as an influencing factor, followed by IT Policy and government regulations at 44%. Finally, management support was the least discussed factor that influences digital supply chain adoption within retail industries at 23% of the articles.

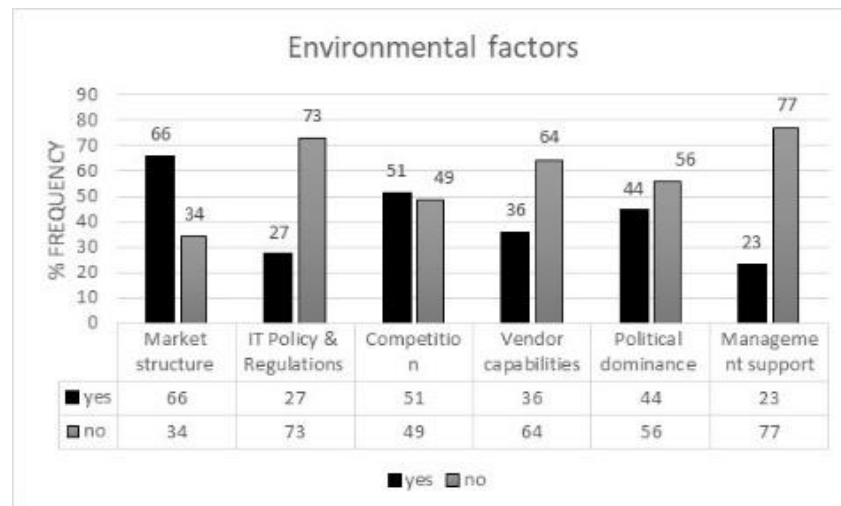


Figure 11: Environmental Factors

8. Discussion

The study used a systematic review to explore factors that influence the adoption of digital supply chain within retail industries. The study adopted the TOE framework to explore the factors that influence digital supply chain adoption within retail industries. The study results revealed that technological factors such as complexity, compatibility, cost, perceived usefulness, relative advantage and security influence the adoption of digital supply chain within retail industries. More specifically, relative advantage, cost and security were the most cited technological factors that influence digital supply chain adoption. The results suggests that retail industries are most likely to adopt digital supply chain if it directly benefits the organisation while simultaneously being cost-effective and offering security from cyberattacks on all retail channels. The study also presented organisational factors that influence the adoption of digital supply chain within retail industries. Resource capabilities had highest influence on digital supply chain adoption. The organisational resources include financial, human and technology infrastructure that influence the adoption of digital supply chain technology within retail industries. The resource capabilities may have a direct of influence on technological factors such as cost and security. Finally, the study analysed that environmental factors that influence the adoption of digital supply chain within retail industries such market structure, competition and political dominance. Market structure was the most important environmental factor that influence digital supply chain adoption. This suggest that organisations are more likely to digital supply chain if it is considered suitable to the current market structure, especially in mature markets that tend to be predominately found in first world countries.

9. Conclusion

Although the study is not exhaustive in nature, it does attempt to contribute to the understanding of the factors that influence digital supply chain adoption within retail industries. In summary, the study achieved its objective of exploring the factors that influence the adoption of digital supply chain within retail industries. This research study may serve as a catalyst for further research in understanding factors that influence the adoption of digital supply chain within retail industries. Despite the study contribution, it is worth to note that the study has also limitation as it not based on empirical data. The limitation provide as an opportunity for further research based on different research methods and strategies.

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Updates in Luxury Purchase Motivation in East Asia: China, Japan & South Korea

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Abstract

Japan and South Korea have always had an important influence in the East Asian luxury goods market. In recent years, Chinese consumers have also arisen extensive attention from luxury brands and consumer markets in various countries. Although the three countries have the common Confucian and Zen culture which brought a certain degree of commonalities, such as collectivism and aesthetic preferences, at the same time, they have developed their own national characters, such as China's "benevolence", Japan's "loyalty" and South Korea's "righteousness" – accompanying the evolution of aesthetic consciousness in the thousands of years' history, all of these impact profoundly on today's consumer motivation. However, the international and national economy, politics, society and communication gradually evolved different consumption motivations. "Luxury" has undergone tremendous changes among consumers in the three countries.

A total of 405 respondents (of which 325 respondents answered all questions) in the three countries received our questionnaire. The questionnaire contained two parts: basic information and consumption motivation, based on the impression of the word "luxury" and the 36 questions which divided into five levels (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree). Impression keywords helped us to understand the changes in consumers' attitudes towards "luxury". Besides, we analyzed 36 consumer motivations and behaviour issues through relative importance index (RII) analysis and classified and grouped these factors to determine the importance of motivation ranking. The results show that Chinese consumers are more concerned about the practical value of luxury goods, such as quality and price. Japanese consumers regard craftsmanship and quality as the most important consumption motives, while pleasure and quality are factors that Korean consumers value more.

Through the analysis of the results, combining with the uncertainty caused by the Covid-19 epidemic this year, we could see that luxury brands not only need to strengthen customer relationship management, but also consumer segmentation, behaviour and sentiment analysis, as well as the predictive analysis in order to

provide customers with personalized, high-quality services. At the same time, as ethics and sustainable values become more and more important in consumer awareness, and even affect their purchasing decisions, they hope that the brands they buy can reflect their own value. Therefore, how to use science and technology to enhance transparency and authenticity will also be the new focus of luxury brands.

Keywords: luxury, consumption motivation, China, Japan, South Korea

1. Literature review

In China, "奢"(luxury) originally means "profligate". "奢，张也。" (《说文解字》) It means excessive, extravagant, large, many and it refers to objects; "侈，掩胁也……一曰奢也。" (《说文解字》) It refers to a large number of people and a tendency to domineering others. In Japanese, "贅沢"(luxury) refers to non-essential and expensive items that exceed necessary money, material, etc. In Korean, "사치" (luxury) also means spending unnecessary money or items. Therefore, the traditional concept of the word "luxury" had a negative meaning in these three countries. To explore the cause from the etymology, we start with the "East Asian cultural sphere" where the three countries are located, and explore the cultural roots of the three countries - Confucianism and Buddhism (Zen).

1.1 Confucianism as the core of thought

Confucianism has developed its ethos or value in China, Japan, and Korea, respectively. Generally, Chinese Confucianism emphasizes "benevolence" that contains a principle of harmony, Korean Confucianism emphasizes "righteousness" which highlights the principle of justice, and Japanese Confucianism takes "loyalty" as which embodies the principle of order, the absolute core.

1.2 Aesthetic taste based on Zen

If we conclude that Chinese's aesthetic consciousness focuses on Confucianism's "Permanence" that "everything has a rule", but pursues spiritual transcendence at the same time; what Japanese's emphasizes is "Impermanence", means "nothing is immutable" that based on the traditional "empty, nihilistic" Zen's thoughts. As blending the "clear and cold" tone to Japanese art, Japanese aesthetics presents a "wabi-sabi" (侘び寂び) atmosphere. According to a survey of Korean temples, pagodas and calligraphy by The Ministry of Culture, Sports and Tourism of the Republic of Korea, four aspects of traditional Korean aesthetic characteristics are playful spontaneity, pure formality, naturalistic simplicity and symbolic decoration. "Unplanned" embodies the beauty of naturalistic simplicity. Koreans believe that simplicity is the essence of nature, which conveys warmth, comfort, and natural relaxation. This is quite related to the "playful spontaneous". The unique aesthetics for this "unexpected feeling" stems from Zen's belief that the existence of things is short-lived; thus, it is necessary to be humble to the things themselves and the surrounding environment.

1.3 The previous motivation of luxury consumption in China, Japan and South Korean

1.3.1 Materialism and "Mianzi", Collectivism and hierarchy in China

In China, people's attitudes towards luxury goods gradually changed after the Reform and Opening-up. Before the 1990s, influenced by traditional Confucian collectivist culture, Zen aesthetics and economic conditions, Chinese consumers emphasized modesty and thrift, leading to a resistance of purchasing luxury goods. (Douglas & Isherwood, 1996) However, today, China's post-80s, who grew up as China becoming an economic powerhouse, are now promoting luxury purchases, and they are willing to spend money to show their individualism and success, while the post-90s are also an emerging force for luxury consumption. (McKinsey Fashion and Luxury Group, 2019)

In the traditional Chinese Confucian society, people pursued authority and "scholar-officials", which means that the higher the status, the more representative of authority. In modern society, this concept has formed a social hierarchy. Richins (1994) found in the survey that people with higher social network pay more attention to expensive products or brands that can represent privileged identities, and products that strengthen the personal image ("face", "mianzi") of them. The empirical research of Eastman et al. (1997) also found that Chinese male consumers focus more on materialism and status consumption than female consumers, which also explains why Chinese luxury goods male consumers in the market were the main buyers. Markus & Kitayama's research (1991) found that, in terms of social dominance, Chinese people focused on making themselves belong to a certain class of social groups so that they could have a sense of achievement (Wong & Ahuvia, 1998). Gift-giving was also an important motivation for Chinese consumers to buy luxury goods. Although it related to the nature of high-end gifts that can reflect the status of social hierarchy, it was also a manifestation of the balance of needs of individuals and groups.

1.3.2 Collectivism and the sense of security, influence of spiritual belief in Japan

Different from the Chinese consumers who desire to show their social status by owning luxury goods, Japanese collectivism is more inclined to "take one's proper station", which means the order and hierarchy are basic in their whole notion of interpersonal relationship. Concretely expressed as "a highly unified order" and the pursuit of "a sense of security".

In 2017, according to a survey faced to 317 respondents who with the annual family income exceeded 119,237 US dollars (13.5 million JP Yen), indicated that the top three buying motivations are craftsmanship (56%), design/style (40%) and service (26%). As Ruth Benedict described in *The Chrysanthemum and the Sword*, Japanese people have a dualistic character; they are attracted by new ways yet can be passionately conservative. They highly admire fine craftsmanship. Therefore, the sold traditional Japanese crafts are called "koukyuhin" (高級品, emphasize on "high-quality, handcrafts", etc.) but not "zeitakuhin" (贅沢品, luxury) in Japanese.

The "Void" of Zen also brought a minimalist lifestyle to the Japanese people. Since the 1980s, they have paid more attention to the richness of thought rather than the richness of things, and they believe that "having many things does not mean a rich life." According to McKinsey & Company's 2019 report, luxury consumption in Japan has become more environmentally-friendly, and the pursuit of the consumed value has changed from material to experience.

1.3.3 Class competition and the cult of beauty in South Korea

In 2016, South Korea became the third pillar of the Asian luxury goods market, which alone represents 2.5% of global luxury goods demand. Only 5% of Koreans said they feel guilty about how much they spend on high-end products and that is a waste of money, compared to 10-15% in other developed countries.

Koreans have a strong desire to set ranks with others because of the caste system and traditional Confucianism. Money became a social symbol of the upper class; luxury is undoubtedly an asset for showing the cult of beauty and a tool helping them to improve their appearance and visibility as a means of differentiation and a representative of high social status.

"Appearance is power", modern Koreans attach great importance to their appearance, mainly due to the population growth and intensified social competition since the 1970s - a powerful family and educational background. As well as a good appearance, are indispensable for a person to reach the top of the social pyramid. Maintaining the proper appearance and complying with the "yewi" (예의, etiquette) required by people's social status is a moral obligation. Therefore, in South Korea, the pursuit of beauty is not only a manifestation of the desire to "appear to be", but also a necessity for the normal functioning of society in accordance with one's status and moral values.

1.4 Literature gap

We have analyzed the influence of Confucianism and Zen on the ideological roots and aesthetic consciousness of the three influential East Asian countries from past literature and works. However, when luxury brands "cater to" millennials, what are the motivations of these new generations for buying luxury goods? Which product attributes are more valued? Has the change in the perception of luxury goods become a major challenge for the cultivation of brand loyalty? Among the three largest luxury markets in East Asia, luxury brands are eager to expand their influence by striking a balance between increased profits and minimal risk, what variables will affect the luxury brand marketing strategy to expand to more countries successfully? How should luxury brands do and educate consumers in the post-epidemic era? These will be the subjects of our research.

2. Methodology

2.1 Introduction

This chapter discusses the methodological issues concerned in the current research. This study chose the relative importance index analysis(RII). RII: Relative Importance Index is calculated for each of the indicators and ranked accordingly. The RII derived from summarizing the importance of each indicator: Where, W = weighting as assigned on Likert's scale by each respondent in a range from 1 to 5, where 1 = no

impacts, 2 = negligible impact, 3 = marginal impact, 4 = moderate impact and 5 = significant impact. A = Highest weight (here it is 5), N = Total number in the sample.

The methodology chapter is divided into the following sections: firstly, the research problem will be discussed; secondly, research methods will be addressed, and their rationality. Third, how is the questionnaire design, how to collect data to obtain results and how to analyze data? Then the ethical issues involved in the study will be discussed. At last, at the end of the chapter, a summary will be provided.

2.2 Research questions

In this chapter, we want to discuss mainly the differences and effects of geographical factors on local people's desire to purchase luxury goods. Luxury goods are non-necessities in life. Many studies have shown that people buy luxury goods because of their outstanding design and excellent quality. Veblen first proposed the research direction of luxury purchase motivation-conspicuous consumption. Later, other scholars gave explanations and supplements. However, the research market they face is the Western market. From the perspective of cultural roots, the three countries of East Asia have been deeply influenced by Confucianism and Zen since ancient times. This influence is based on the basic views of traditional values, including economic beliefs, political opinions, religious values, and aesthetics. In a nutshell, it is an inclusive "cultural" sense that permeates every bit of value in life. East Asian consumers buy luxury goods because they can give them a higher social status and are a status symbol. It may also be because of the value recognition of luxury brands. It may also be to express themselves.

After careful inspection, there is a lack of in-depth research on consumers in the three East Asian countries, China, Japan, and South Korea. This research aims to figure out the purchasing motivation of luxury consumer groups in the three East Asian countries. Therefore, the first question of this study is: What are the motivations of consumers in these three countries to purchase luxury goods? According to a literature review, luxury goods have the attribute of symbolizing social status; that is, luxury owners believe that luxury goods can express their social status and prestige. According to previous research, people in Western society are individualists, while Eastern consumers are often collectivists. Therefore, the second question is: how does the consumer motivation of the three countries perform in terms of conformity? Last but not least, in this study, the interviewees came from three East Asian countries. Because of the influence of geographical, cultural, political and other factors, the three countries have their own different luxury consumption cultures. So the third research question is: in terms of the consumption motivation, are there any significant similarities or distinctions in the motivations of the three countries?

2.3 Justification for the methodology

In general, there are two research methods used in research papers, qualitative methods and quantitative methods. The objective of this research is to chase down the purchasing motivation behind consumers in the three East Asian countries based on existing research. As the objective of the current study is to check out the relationships between the variables that "have been previously recited and measured" rather than

to explore "what are the variables involved", the quantitative methodology is more appropriate than qualitative methodology (Perry, 1998, p.78). Therefore, here this research uses quantitative methodology. The most significant advantage of quantitative research is that it provides descriptive data, which is more suitable for collecting extensive sample data. Besides, in a limited time, quantitative questions are easy to be understood and answered by investigators, and data results are easier to analyze and explain. Here in this thesis, the relative important index(RII) is the primary research method we use. RII is a subjective evaluation method. Our targeted questionnaire design allows local people to answer questions subjectively, which can help us solve problems better. At the same time, RII supports weighted judgments that need to be answered by weights, which can help us better locate impact factors.

2.4 Survey Development

This section discusses how to design the questionnaire for the current study. The study applied a structured self-management questionnaire. Three questionnaires were corresponding to the three languages of China, Japan and South Korea. All questions are closed questions.

2.4.1 Self-administered questionnaire

WenJuanXing(www.wjx.cn) is an integrated online questionnaire distribution, collection and analysis system; this questionnaire design and collection will be completed on this platform. Through the network link sent by the researchers, the interviewee answered the self-filled questionnaire of WenJuanXing. The interviewees are all from China, Japan and South Korea, which correspond to the geographical area that this research needs to investigate.

2.4.2 Survey design

After investigating and researching the relevant papers on the motivation of buying luxury goods in China, Japan and South Korea, we have selected some impact factors and subtitles to introduce into this questionnaire and made some adjustments based on the current situation.

2.4.3 Survey structure

This thesis is divided into multiple subheadings and the critical impact factors under the subheadings—perfusion from bottom to top. In the current study, the survey included a total of 44 scoring scale questions. The questionnaire is divided into two parts. The first part explores the basic information of the participants, a total of 8 queries: seven multiple-choice questions and a fill-in-the-blank question to measure participants' attitudes and preferences towards luxury goods, including gender, age, education level, channels of concern for luxury goods, and preferred luxury category etc. The second part aims to study the purchase motivation of participants, and there are 36 questions in total: from the perspective of purchase motivation and consumption behaviour, involves hedonism, materialism, conspicuous consumption, the phenomenon of following trends, consumer decision-making, purchase channels, etc.

2.5 Reliability & Validity

Reliability represents the reliability and consistency of the data, and it can reflect the stability and concentration of the data. Validity refers to the ability of measurement tools to measure the real situation of things accurately, and it can reflect the accuracy of data. Therefore, the design of the questionnaire is directly related to the reliability and validity of the collected data. There are two layers of test and verification analysis in this article. First, we will base the data on it. Software foundation is used to verify the reliability and effectiveness. Secondly, we will conduct regression tests on the final output related results.

The reliability of the questionnaire can be measured by the internal consistency coefficient of the meter. This thesis uses Cronbach's alpha coefficient to calculate. Usually, the value of Cronbach's alpha coefficient is between 0 and 1. If the α coefficient does not exceed 0.6, it is generally considered that the internal consensus reliability is insufficient. This thesis uses factor analysis to test the validity of the questionnaire. Factor analysis is a statistical method to test validity. If the KMO value is more significant than 0.6, and Bartlett's sphericity test significance is less than 0.05, then the original data of the questionnaire is very suitable for factor analysis. It can be further explained that the result of the following factor analysis operation is accurate. Therefore, the validity of the scale can be accurately inferred based on the results of factor analysis.

The original questionnaire was designed in English, but considering the language barrier, the questionnaire was translated into three different versions: Chinese, Japanese and Korean. Before the final questionnaire was officially released, the researchers conducted a distributed test to observe the situation. The overall results show that the questionnaire is easy to understand, easy to fill, and can be completed in a short time (an average of 2-3 minutes).

2.6 Relative Important Index

This thesis uses Relative Important Index(RII) to measuring opinions, beliefs and attitudes. The relative importance index analysis allows the most critical criteria to be determined based on the responses of the participants. Furthermore, it is also a suitable tool for prioritizing the indicators scored on the Likert-type scale. The mathematical model is as follows:

$$\text{Relative importance index} = \frac{\sum w}{AN} = \frac{5n_5 + 4n_4 + 3n_3 + 2n_2 + n_1}{5N}$$

Besides, the data is analyzed by the formula of the relative index analysis method of the previous related research. Therefore, it is suitable as the current method to participate in an estimate by interviewees with their opinion and attitude to luxury goods. In order to improve the validity of the data, the answer to the question adopts a five-point system to generate sufficient variance. In this study, the questionnaire asked respondents to respond to relevant statements from 1 to 5 and give their answers: 1 = strongly agree, 2 = agree, 3 = neutral, 4 = disagree, and 5 = strongly disagree.

2.6.1 Primary Data

The primary data source of this thesis relies on the online questionnaire support with the online platform WenJuanXing. Researchers will send the questionnaire to the respondents through online channels. Distribute the questionnaire by sending a URL link containing the questionnaire through online platforms such as Facebook, WeChat, and Hello Talk.

2.6.2 Snowball Sampling

This data collection will also rely on the snowball effect. We will promote the distribution of the questionnaire through the online community platform, by answering the questionnaire with prize form and copy, and strive to achieve a wide range of self-communication.

2.6.3 Sample selection

This data collection will set a certain screening threshold and will check some unfinished and conflicting questionnaires. Perform effective data cleaning. Complete the preparatory work to ensure that the data analyzed later is valid and effective. The snowball sampling method was used because the researchers were in France and receiving geographical restrictions. Initially, to collect research data, researchers used personal social networks for questionnaire distribution. All interviewees were guaranteed a secure connection before the interview.

2.6.4 Response rate

The calculation method of the response rate of the questionnaire will be redefined, and the effective distribution questionnaire will be defined as the total number of views of the open questionnaire. The molecule will be defined as—the number of people who completed at least one question. Expected response rate will reach more than 80%.

2.6.5 Issues of sample size

The expected risks and problems will mainly focus on whether the magnitude of the questionnaire is representative. Whether the analyzed results can effectively support the output conclusion, the large sample size is more conducive to obtaining significant statistical results. However, due to language barriers, geographic restrictions and other factors, receiving a large number of samples are not feasible. According to the adviser's suggestion, the researchers finally set the questionnaire collection target to at least one hundred copies for each country above.

2.7 Data Analysis

The primary purpose of this study is to determine which purchase motives are the most important for consumers in China, Japan and Korea. This data analysis and collection will mainly rely on professional data analysis software. SPSS and AMOS are crucial tools for data analysis in this research. Besides, Excel will be used as an additional tool.

2.8 Ethical awareness

The author hereby solemnly declares that the data will not be used for any commercial purpose. The data of the nesters involved in this paper will be strictly confidential and

only used for the data analysis stage of this paper, and the data will be cleaned afterwards.

2.9 Chapter Summary

This chapter mainly introduces research methods that will be used as well as the issues that need to be focused. Furthermore, the sources of data, analysis methods – moreover, an overview of the tools used in the process and subsequent processing. The analysis details will be explained in the next chapter.

3. Analysis of data

3.1 Introduction

This chapter discusses the process of data analysis and provides research results. The primary purpose of this research is to find out the motivations that motivate consumers in China, Japan and South Korea to purchase luxury goods. The data analysis in this chapter is divided into four parts. The first part discusses the scope of this topic in the research process; the second part explains the analysis results of the collected data. The method of dimensional analysis chooses exploratory factor analysis combined with confirmatory factor analysis. The RII analysis method mainly distinguishes the differences and similarities in luxury consumption motives in three different countries. Finally, the conclusion of this chapter is provided.

3.2 Subjects

The subjects of this study are men and women living and working in China, Japan, and South Korea. Affected by Eastern culture, consumers represented by China, Japan and South Korea have individual differences in consumption concepts from Western consumers. Meanwhile, it will also be influenced by the deep cultural and social factors of these three countries. Respondents in the three countries have different levels of awareness of luxury goods.

According to the data collected, the youngest respondent was less than 20 years old, and the oldest was over 60 years old. For ethical considerations and the interviewee's comfort, the questionnaire did not record names.

3.3 Basic information of respondents

A total of 325 respondents answered all questions, including necessary information and motivation surveys. Among them, there were 111 Chinese questionnaires, 107 Japanese questionnaires and 107 Korean questionnaires.

Among the Chinese respondents, 16.2% (n=18) were men, and 83.8% (n=93) were women: 56% of the respondents are 20-30 years old, and 18% are 20-40 years old. Among the 111 participants, about 80% had a bachelor's degree or higher. In terms of the frequency of buying luxury goods, 85.6% of respondents said: "Occasionally buy luxury goods when they need or like".

For South Korean, there are 107 respondents, of which 47.7% are males (n=51), and 52.3% are females (n=56); recipients younger than 30 years old. The proportion of

interviewees is 85.9%; more than 85% of the interviewees have a bachelor's degree or above; 50% of the interviewees said they buy luxury goods every year.

Question 4 is a fill-in-the-blank question: write three keywords about the characteristics of true "luxury"? Then, here are the keywords of the three countries:
 China: rare, art, precious and rare, fashion, cultural symbols, well-known brands, a unique niche, style, taste, elegance, long-term value preservation, brand value, quality, design, cultural connotation, collection value, fashion trend, durability, face culture.

Japan: expensive things that are not necessary for life, self-satisfaction, high-quality assurance, excellent craftsmanship, cultural bearing, need time to manufacture, social status, living standard better than average-level, aesthetics, scarcity.

South Korea: satisfy personal value, leather bags, fashion background, expensive, jewellery, watches, money, scarce, famous, real estate, no need for greed and waste, unnecessary, high-quality brand, social status.

Question 5, Question6, and Question7 are multiple choices. Here the tables below present the results:

Table 3.1 Q5: Which of the following luxury products will you pay attention to/purchase (multiple choice)?---China

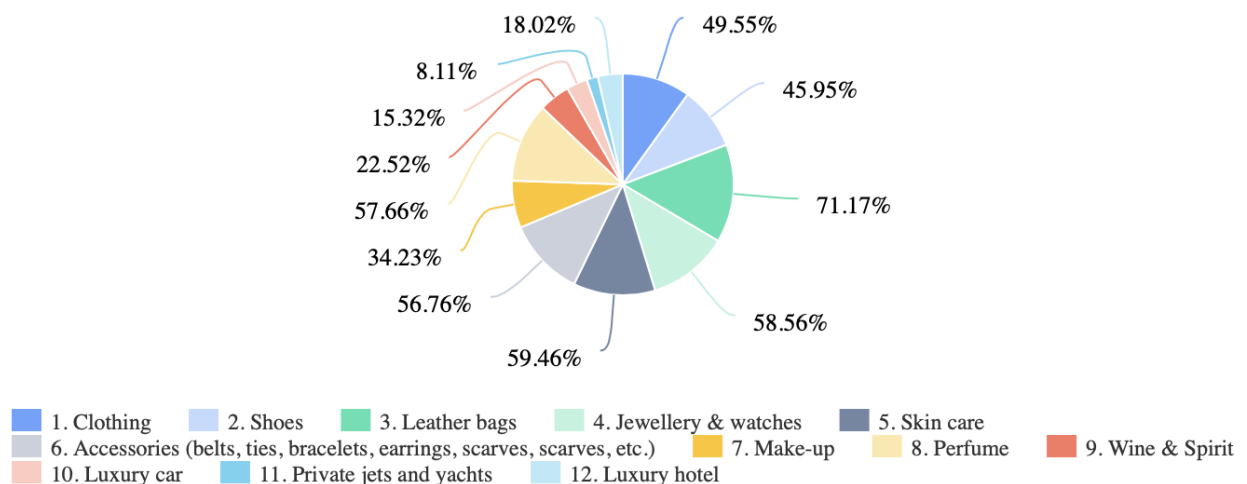


Table 3.2 Q5: Which of the following luxury products will you pay attention to/purchase (multiple choice)?---Japan

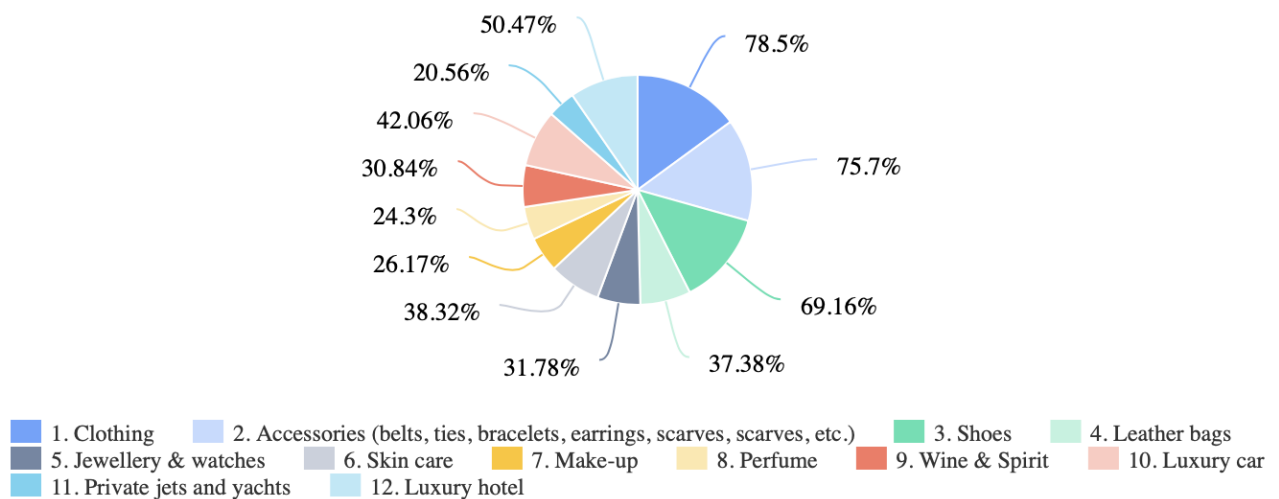
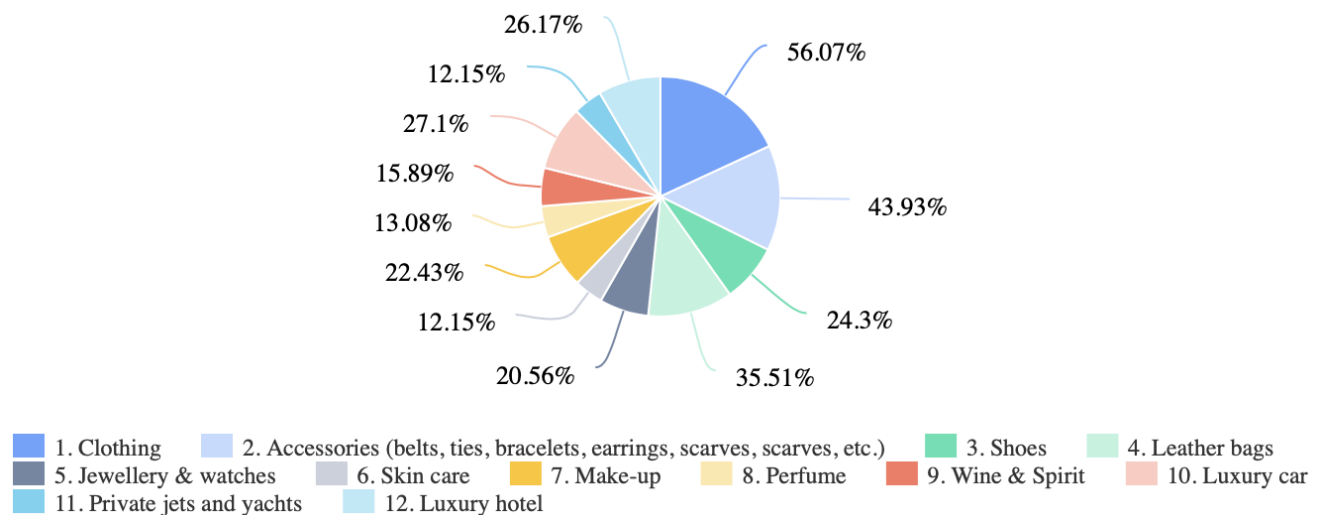


Table 3.3 Q5: Which of the following luxury products will you pay attention to/purchase (multiple choice)?---South Korea



For Question 5, the three tables above show: Chinese participants pay more attention to leather bags, Jewelry and watches, and skincare; for Japan, the respondents tend to clothing, accessories (belts, ties, bracelets, earrings, scarves, scarves, etc.) and shoes; similarly, respondents from South Korea more interests on clothing, accessories (belts, ties, bracelets, earrings, scarves, scarves, etc.) and leather bags. (Table 3.1, Table 3.2, Table 3.3)

Table 3.4 Q6. Which of the following channels do you get information about luxury goods?---China

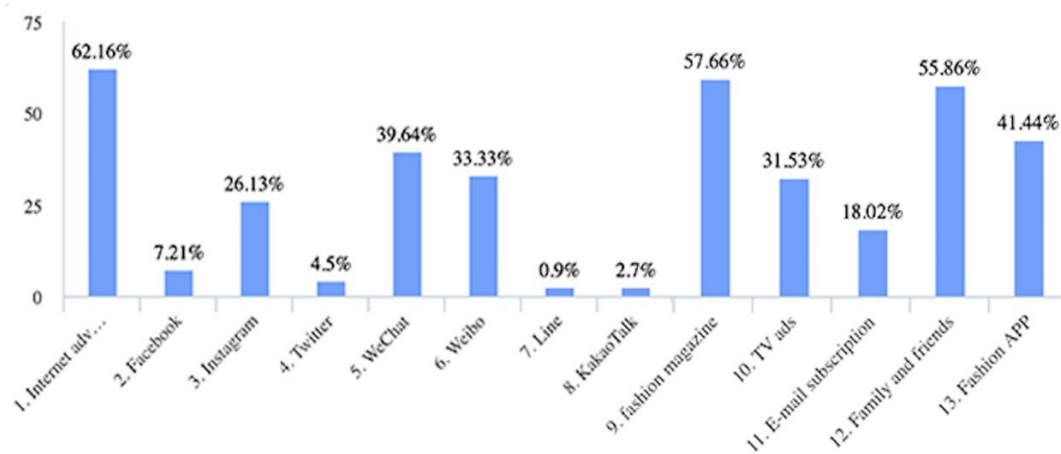


Table 3.5 Q6. Which of the following channels do you get information about luxury goods?---Japan

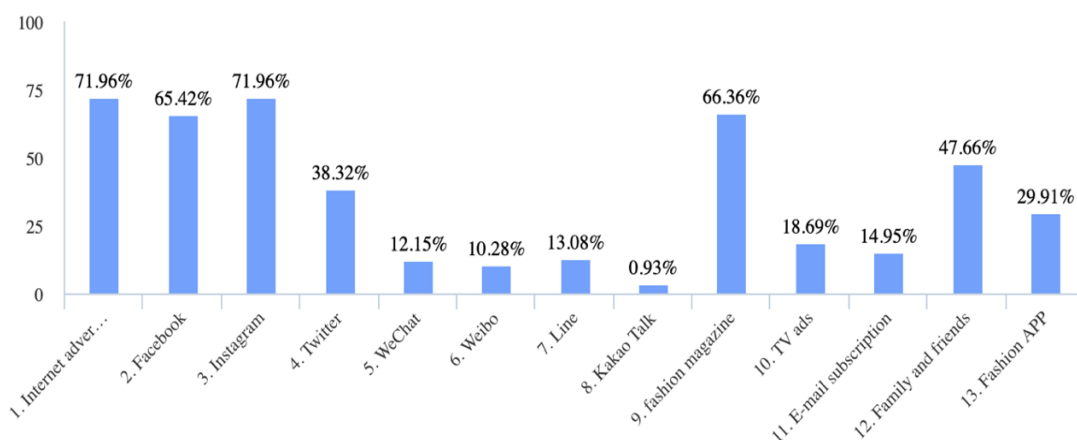
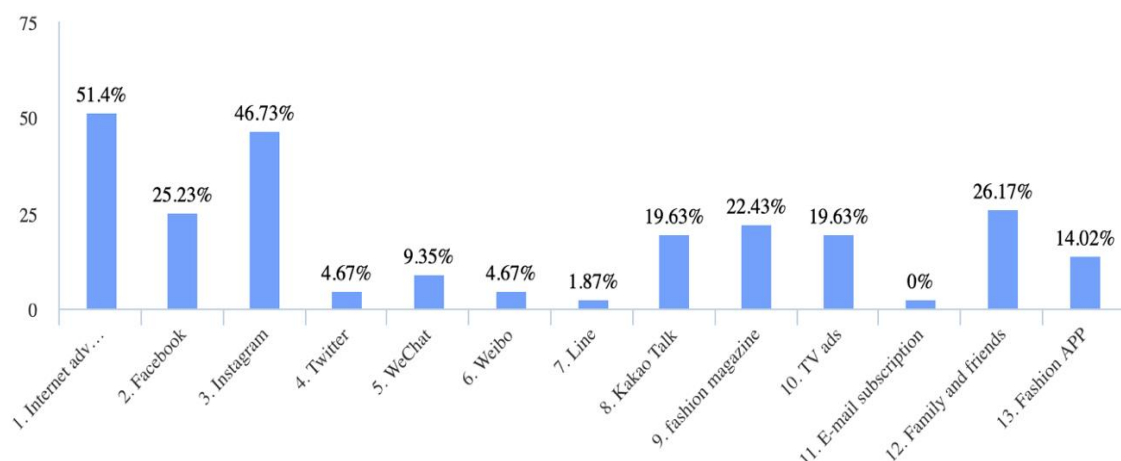


Table 3.6 Q6. Which of the following channels do you get information about luxury goods?---South Korea



From the data of Question 6, it is evident that the three countries know a large amount of information about luxury from the Internet, fashion magazine and family and friends. While because of some limitation on Internet, the channels are distinctive. (Table 3.4, Table 3.5, Table 3.6)

Table 3.7 Q7. Why would you fall in love with a brand? (multiple choice)---China

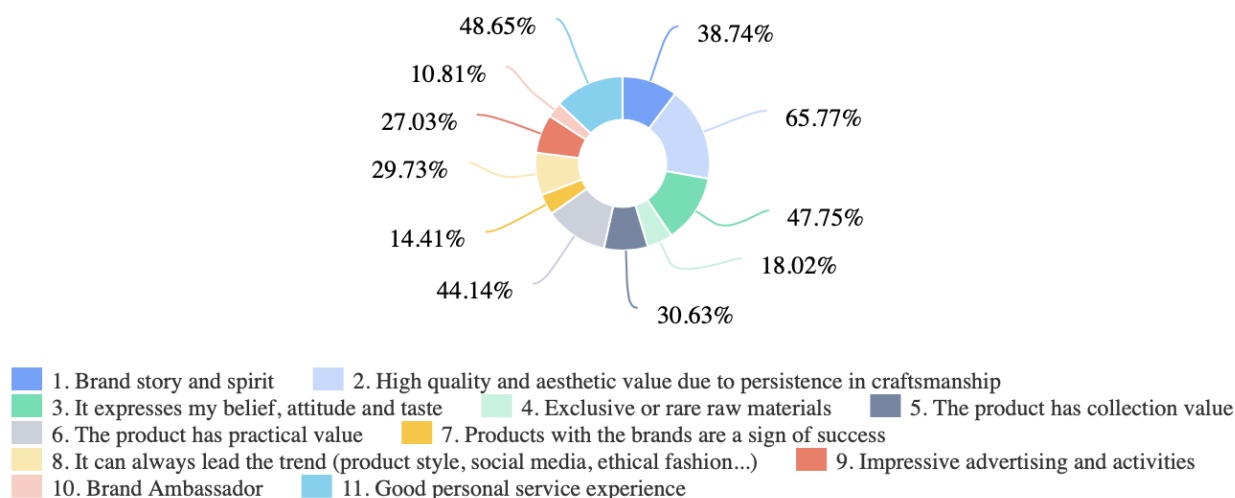


Table 3.8 Q7. Why would you fall in love with a brand? (multiple choice)---Japan

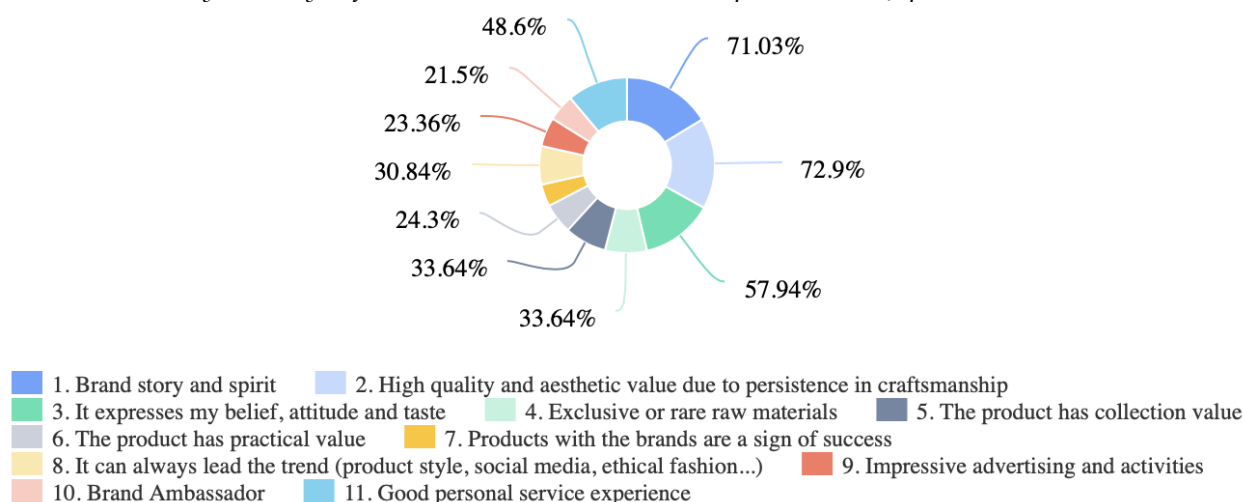
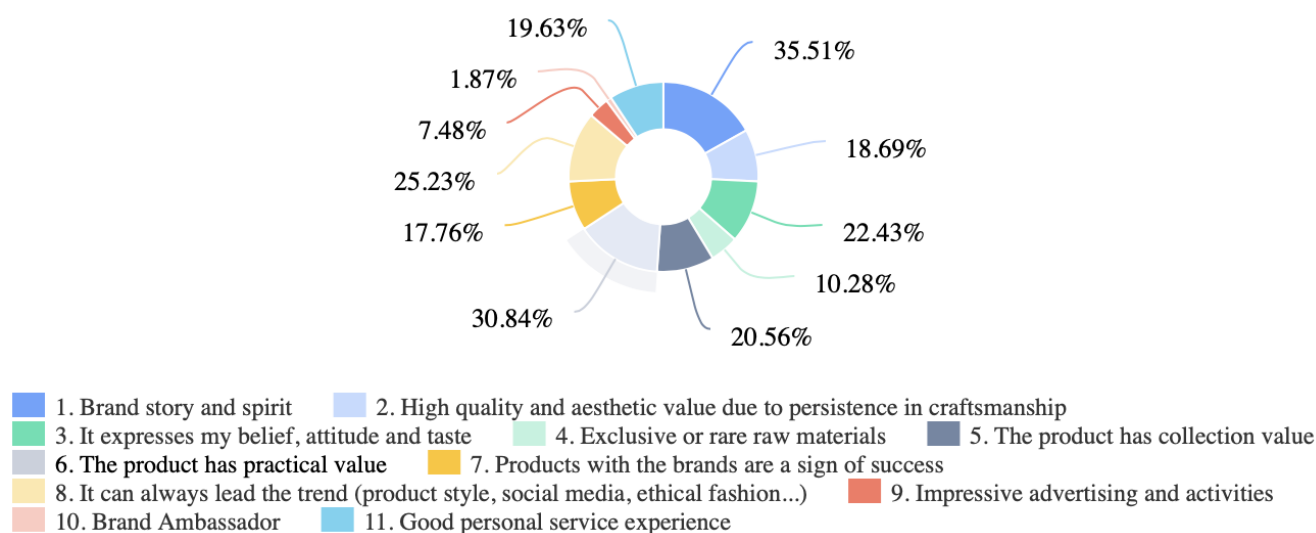


Table 3.9 Q7. Why would you fall in love with a brand? (multiple choice)---South Korea



From the result for Question 7, it is easy to know that about fall in love a luxury brand Chinese and Japanese respondents all need high quality and aesthetic value. Besides, the brand needs to help express their belief, attitude and taste. The difference between the respondents from these two countries is that Chinese respondents more tend to good personal service experience, while Japanese respondents demand brand story and spirit. South Korean respondents also focus on brand story and spirit; they also ask for the practical value of luxury goods. (Table 3.7, Table 3.8, Table 3.9)

3.4 Reliability test

There are 36 items in the second part of the questionnaire, which mainly study the luxury purchase motivation of consumers in three different countries. Before doing the RII analysis, we need to test the reliability and validity of the questionnaire to ensure the feasibility of the data. The questionnaire needs to be tested for validity based on ensuring its reliability. Whether it has reliability depends on the Cronbach Alpha coefficient. Then verify the validity. Firstly, here the exploratory factor analysis is carried out; the purpose is to obtain the dimension division of the questionnaire and delete the items whose factor load does not meet the standard. Finally, after following the new sample, based on the results of the previous exploratory factor analysis, the verification factor analysis was performed again to analyze the structure validity and aggregate validity of the scale. Since the data results come from three different countries, the dimensions need to be re-divided according to their products. Here we first used exploratory factor analysis to find out the dimensionality of each country. According to the load given by exploratory factor analysis, the items that are not valid are deleted. On this basis, use the remaining items and dimensions to do confirmatory factor analysis. After testing the reliability and validity, the results of the RII analysis are given at the end.

Reliability is a necessary criterion for validity, but not a sufficient condition. In other words, all validity must be established based on reliability. Moreover, if the validity is not measured, then the so-called reliability will not have any credibility. Reliability and validity need to meet the following standards:

Reliability: $\text{Alpha} > 0.7$

Validity: $\text{KMO} > 0.6 \& \text{P} < 0.05$

Therefore, the reliability test must be carried out first. For reliability testing, the key is to look at the Cronbach Alpha coefficient: if the Alpha value is greater than 0.7, the reliability is qualified, that is, the consistency between the questions is okay. Based on reliability, then measure validity. The Cronbach Alpha coefficient of the three questionnaires is 0.936, 0.939, and 0.934, respectively, which are all greater than 0.7. Therefore, all three questionnaires have reliability.

3.5 Validity test

To test the validity, we must first look at the KMO value and the results of the Bartlett sphericity test. Suppose the KMO value of the scale is greater than 0.6, and the significance (P) is less than 0.05. In that case, it means that exploratory factor analysis (EFA) can be performed on the data in the next step, and it also shows that the questionnaire has good validity. Exploratory factor analysis (EFA) is a method of

dimensionality reduction: first dimensionality reduction, and then through factor loading, to find the matching relationship between factors and many topics. If the matching degree is high, the validity of the questionnaire is high. To further confirm whether the initial factor structure is valid, finally, choose to do confirmatory factor analysis (CFA)

3.5.1 KMO & Bartlett's Test

The KMO of the three questionnaires is 0.83, 0.852, and 0.8 respectively, which are all greater than 0.6, and the significance (P) are all 0. Therefore, all three questionnaires have validity.

3.5.2 Exploratory factor analysis

3.5.2.1 Principal component extraction

There are nine factors with initial eigenvalues greater than 1. Therefore, the data results of the Chinese questionnaire have a total of nine principal components. The cumulative explained variance variation is 71.374%, indicating that the nine factors extracted from 36 items have an ideal degree of explanation for the original data. For Japan, there are seven factors with initial eigenvalues greater than 1. Therefore, there are seven principal components in the data results of the Japanese questionnaire. The cumulative explained variance variation is 66.331%, which shows that the seven factors extracted from 36 items have an ideal interpretation of the original data. Furthermore, for South Korea, there are seven factors with initial eigenvalues greater than 1. Therefore, there are seven principal components in the data results of the Korean questionnaire. The cumulative explained variance variation is 68.181%, indicating that the seven factors extracted from 36 items have an ideal interpretation of the original data.

3.5.2.2 Rotation component matrix

The rotated component matrix can be used to observe whether each variable is distributed on different factors. At the same time, whether the measurement items of each variable are well concentrated in the same factor, and the factor load of the measurement items of the same variable must be greater than 0.5. If the loads on more than one component are greater than 0.5, then this question is not valid. Moreover, if one question forms a principal independent element alone, it is also not valid for the scale. Moreover, if questions have loads less than 0.5 on any factor, so they are also invalid. So here is the result below:

According to the rotation component matrix, the attribution of the factors of each topic can be judged. The result of Chinese: six factors in total. For Japanese result: six factors in total. And for Korean: five factors in total.

3.5.3 Data screening

In order to do confirmatory factor analysis next, data should be cleared, including the following questions:

Delete items whose factor loads do not meet the standard, and follow new samples. Perform confirmatory factor analysis based on the results of previous exploratory factor analysis. Therefore, it is necessary to delete items that are not valid in the rotation component matrix.

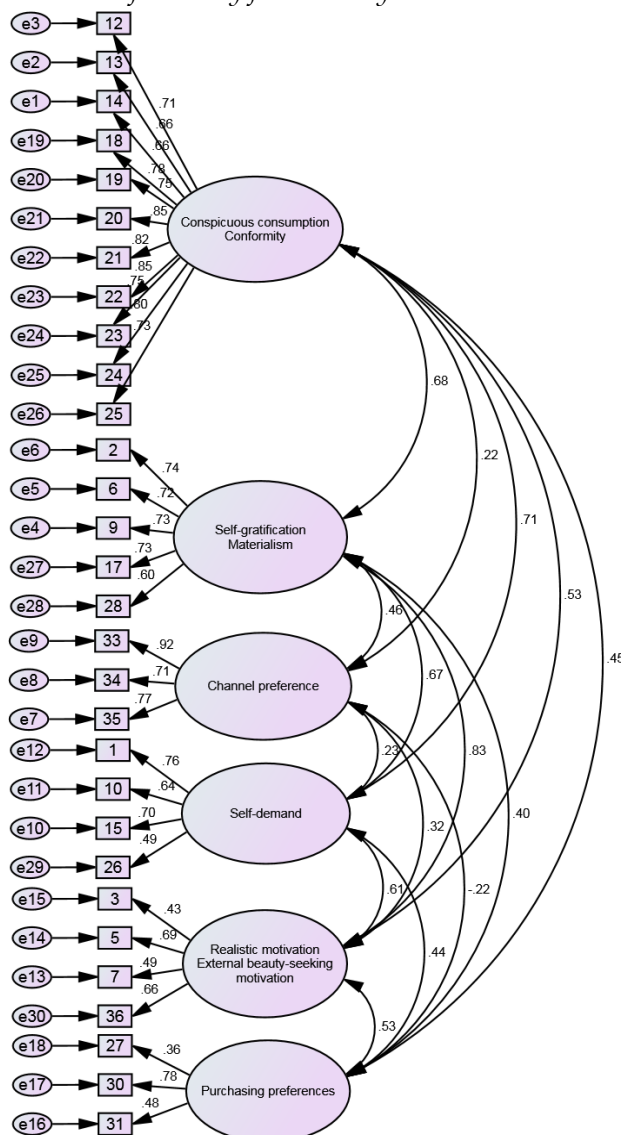
3.5.4 Confirmatory factor analysis

Confirmatory factor analysis is generally used as an exploratory factor analysis to do a further test for the validity of the questionnaire data. It mainly includes three aspects: construct validity, combination reliability and convergent validity, and discriminative validity. Since luxury goods have different social functions in each country, there are differences between the cultures related to consumer self-concepts in each state. There are differences in the principal components of the three different countries on the items. Therefore, the various data results of the questionnaire in the three countries focus on the analysis of factor loads, and no discrimination validity analysis.

3.5.4.1 Common method deviation

The structural validity shows the quality of the structural model. The X^2/df ratio is generally required to be less than 3, which represents an ideal adaptation. The value of the factor load should make the model reasonable and interpretable. The factor load is generally required to be greater than 0.5, the average variance extraction AVE is greater than 0.5, and the combined reliability CR is greater than 0.7.

Table 3.10 Confirmatory factor analysis model---China

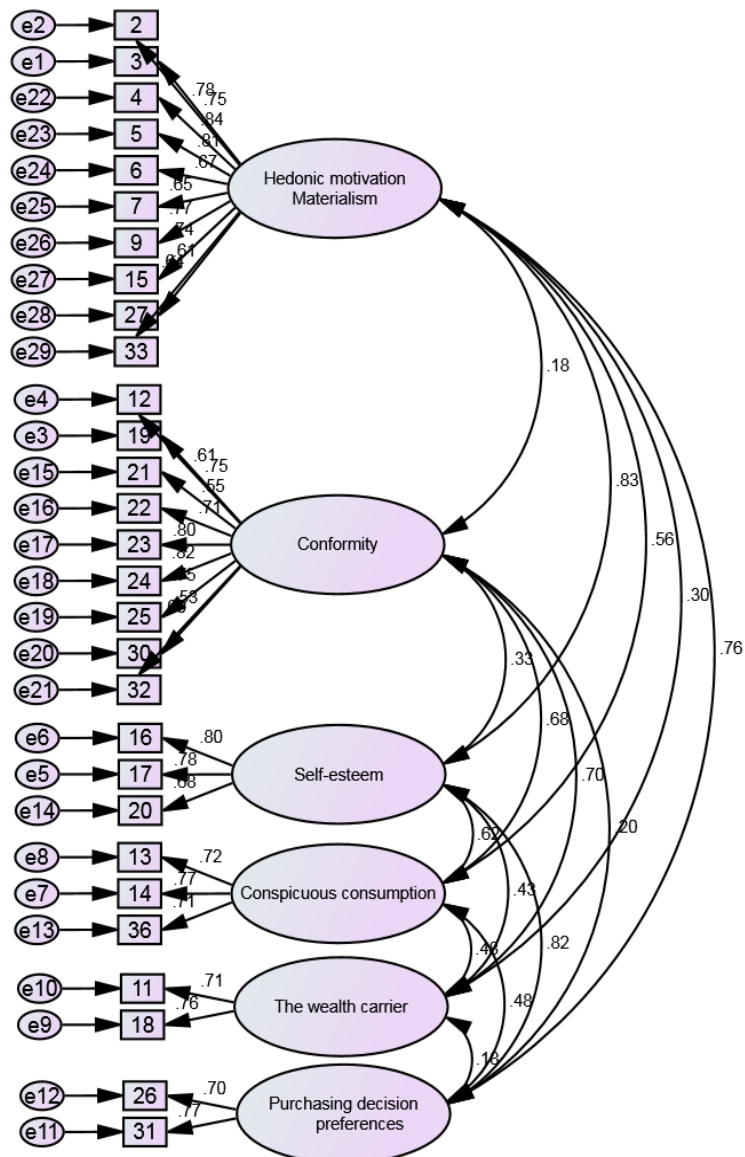


The above verification factor analysis model matches well with the scale data (Table 3.10, Table 3.11), and the matching index values are as follows:

Table 3.11 Overall fitting coefficient table---China

X2/df	RMSEA	GFI	AGFI	CFI	IFI	TLI
1.794	0.085	0.719	0.665	0.824	0.829	0.804

Table 3.12 Confirmatory factor analysis model---Japan

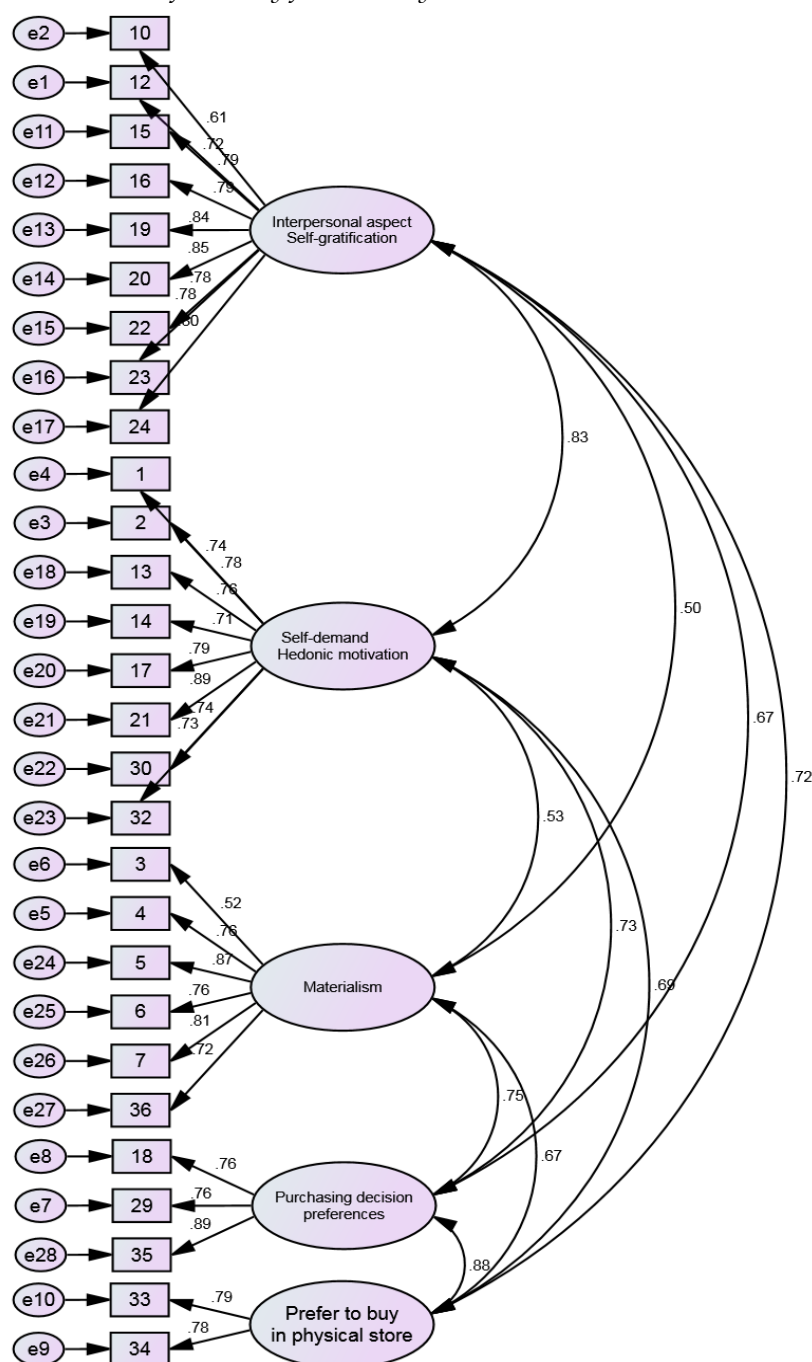


The above verification factor analysis model matches well with the scale data (Table 3.12, Table 3.13), and the matching index values are as follows:

Table 3.13 Overall fitting coefficient table---Japan

X2/df	RMSEA	GFI	AGFI	CFI	IFI	TLI
1.719	0.082	0.745	0.699	0.845	0.848	0.829

Table 3.14 Confirmatory factor analysis model---South Korea



The above verification factor analysis model matches well with the scale data (Table 3.14, Table 3.15), and the matching index values are as follows:

Table 3.15 Overall fitting coefficient table---South Korea

X2/df	RMSEA	GFI	AGFI	CFI	IFI	TLI
2.217	0.127	0.627	0.561	0.658	0.665	0.626

The results of data from three different countries in China, Japan and South Korea show that the structural validity of this questionnaire is relatively good, with primary and secondary distinctions. The three countries have a different emphasis on principal components.

3.5.4.2 Convergent validity

The factor load of each topic corresponding to the most latent variable in each principal component is greater than 0.7, indicating that each latent variable corresponding to the subject has high representativeness. Besides, the average variance extracted (AVE) of the most latent variable is greater than 0.5, and the combined reliability (CR) is greater than 0.8, indicating that the convergence validity is acceptable.

3.6 Relative importance index

Table 3.16 RII analysis results in TOP 3 questions---China

QUESTION	OPTION*					Total	Total Number (N)	A*N	RII	Ranks
	5	4	3	2	1					
3. I place emphasis on quality assurance over prestige when considering the purchase of a luxury brand	39	54	16	1	1	462	111	555	0.8324	1
7. When buying luxury goods, I will pay attention to their style and price, and also consider health and environmental effects.	40	50	18	1	2	458	111	555	0.8252	2
8. I will buy luxury goods due to discounts or promotions.	27	53	25	5	1	433	111	555	0.7802	3

The above table shows the top 3 questions are Question 3, Question 7, Question 8. (Table 3.34) Therefore, based on these three items, it can be seen that for Chinese respondents, they value the quality assurance, design style, and environmental friendliness of luxury products more than the prestige brought by them. Besides, they will pay more attention to products with discounts or promotions.

Table 3.17 RII analysis results in TOP 3 questions---Japan.

QUESTION	OPTION*					Total	Total Number (N)	A*N	RII	Ranks
	5	4	3	2	1					
3. I place emphasis on quality over prestige when considering the purchase of a luxury brand.	75	17	6	6	2	475	107	535	0.88785	1
4. Luxuries I bought are practical/useful.	62	32	6	6	1	469	107	535	0.87664	2
2. Owning luxury products can give me a feeling of happiness.	66	23	8	9	1	465	107	535	0.86916	3

The above table 3.35 shows the top 3 questions are Question 3, Question 4, Question 2. (Table 3.35) Therefore, for Japanese respondents, they value quality assurance and practicality more than the prestige brought by luxury goods. Besides, they enjoy the happiness brought to them by luxury goods.

Table 3.18 RII analysis results in TOP 3 questions---South Korea.

QUESTION	OPTION*					Total	Total Number (N)	A*N	RII	Ranks
	5	4	3	2	1					
2. Owning luxury products can give me a feeling of happiness.	23	44	26	9	5	392	107	535	0.7327	1
31. It is easy to choose and make a comparison with other products while shopping for luxury products online.	22	41	32	4	8	386	107	535	0.7215	2
3. I place emphasis on quality assurance over prestige when considering the purchase of a luxury brand	22	38	29	12	6	379	107	535	0.7084	3

The above table shows top 3 questions are Question 2, Question 31, Question 3. (Table 3.36) Therefore, according to their corresponding question items, it can be seen that for Korean respondents, what they put first is what luxury goods bring them happiness. They enjoy the convenience of e-commerce. Also, they fancy the quality assurance of luxury goods.

Interestingly, in the results of the RII analysis, question 3 appeared in the top 3 options of the respondents in the three countries, indicating that the respondents in these three countries consistently value the quality of luxury goods. (Table 3.34, Table 3.35, Table 3.36) Besides, respondents from Japan and South Korea have Question 2 in the top 3 items, indicating that respondents from Japan and South Korea are more inclined to enjoy the hedonism brought to them by buying luxury goods. (Table 3.35, Table 3.36)

3.7 Chapter summary

As mentioned before, in this study, the data is divided into two parts. The first part is used to survey respondents' necessary information about luxury goods consumption. The second part uses factor analysis to compare the principal components of the 36-items of respondents in the three countries. Although the result of the data is not ideal, it is acceptable. Finally, the results of the RII analysis help to figure out the connections and differences between the respondents in the three countries. There is still space for amelioration in the design of the questionnaire. However, the results of this study are more significant, and the results of the data analysis have reached the expected value.

4. Conclusion

From our survey, it is clear that Chinese consumers now pay more attention to the material use-value of luxury goods, that is, quality and price, and word-of-mouth in China is still an important reference factor for consumers to make luxury purchase decisions. It is worth noting that young Chinese luxury consumers do not much care about showing off their wealth with luxury goods but focus on self-gratification and aesthetics. At the same time, whether the products are friendly to the health and the environment has also become one of the important motivations for luxury consumption.

In Japan, craftsmanship and artistic value are still the primary factors determining Japanese consumers' brand preferences. Japanese consumers prefer to express their personal taste and receive professional and friendly service when purchasing luxury goods. It can be seen that craftsmanship, design/style, and service are still the three major consumption motivations of Japanese luxury consumers, and the proportion is showing an upward trend; in addition, young Japanese consumers are more inclined to snob motivation, represented by expressing individuality, rather than obey the "sense of security", which brought by the collectivism.

Compared with the pragmatism of Chinese consumers and the obsession with the craftsmanship of Japanese consumers, Korean luxury consumers regard hedonism as the most important motivation, which also reveals the influence of traditional "elite culture" on current Korean society. At the same time, they are also keen to enjoy high-end personal experience consumption. Similar to China, Korean consumers tend to obtain a large amount of information and word-of-mouth from the Internet before making a purchase decision, to compare the quality and product details that they are more concerned about.

5. Contributions

5.1 Digitization: build relationships based on data + privacy protection

To focus on specific audience segments, luxury brands are redesigning customer engagement technology through data analysis tools. The wider usage of artificial intelligence technology (such as AI chat robots) will help to achieve instant customer service and automated sales, as well as store the data of customers or potential customers, to analyze the consumer segmentation, behaviour and sentiment. On the other hand, luxury brands also need to know more about their data and how to store them securely.

5.2 Marketing strategy: local awareness + brand recognition

Each ethnic group has its own unique culture and behaviour; marketing practitioners need to consider different geographical factors when carrying out marketing activities for their brands. At the same time, luxury brands are more important than the tangible assets of simple products in the intangible assets of brand stories, images and styles. When formulating marketing plans, it is necessary to combine the brand's DNA and reflect these characteristics and transmit the value through marketing strategies.

In addition to catering to regional culture and sharing brand narratives, it is also important to create ambitious and attractive contents that can adapt to customers' needs for showing their lifestyle, bringing them psychological satisfaction and satisfying their desire for freshness. After all, in today's digital era in pursuit of personalization, brands should become a "person" and a "friend" of the customers with the help of contents, so that the communication can be more effective, and create new value for the consumers.

5.3 Service and experience: improve the touchpoints + redesign stores' role

Most organizations need to invest more in customer experience (CX) and measure the "return on experience" (ROX). In addition to providing guidelines for safe use, ensuring product quality, and maintaining the offline store environment and professional training for employees, when e-commerce is prevalent, other services should not be lost. These services include every touchpoint in terms of online customer service, purchase process (whether the product classification page is clear enough, the readability of the product page, the virtual try-on, the convenience of payment, etc.), packaging, logistics, after-sales service and timely response to the evaluations.

Luxury brands should also assume that different stores have different roles, and flagship stores that shape the brand image are stores that focus on generating sales profits, or stores that mainly act as contact points for consumer relationships or even immersive digital experiences. Storefronts with new features, The revised branch may need to review and redefine the current store format.

5.4 The luxury market in the post-Covid-19 era

The "loyalty" located at the back end of the AIPL model will become an important performance growth point for the brand in the post-epidemic era. Not only do the brands need to strengthen marketing at the cognitive stage, but it should also gradually follow up the digitalization of customer retention.

As consumer awareness matures, ethics and moral values are becoming more and more important, and will even affect their purchasing decisions, because they hope that the brands they purchase can reflect their value as the members of society. That means brands should consider how digitalization plays its role at every stage of the value chain, with transparency and authenticity to prove that they use actual actions to act and communicate not only as a brand but also as a social and committed actor to gain social acceptance of fashion players.

In the foreword to the Japanese version of "Fourth Consumption", the author wrote "物ではない何によって人は幸せになれるのか？" (What can make people happy besides commodity?) Although it is still impossible to predict how long the epidemic will last and how much impact it will have on the luxury purchase market, it is inevitable that rethink the desirability and relevance of luxury in pandemic times is a high priority for the luxury brands and each practitioner of this industry.

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The Impact of Gendered and Gender-Neutral Communication on Brand Equity: A Study on Children Apparel Industry

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Abstract

This work wants to analyze the impact of communication on Brand Equity, comparing a gendered and an ungendered type of advertising relative to a brand of children apparel. The idea of this work comes from the acknowledgment that, to the current situation, there is little research on the pro/cons of the usage of a type of communication alternative to the traditional one and free of gender stereotypes, and on its objective consequences on brand dimensions. The study was conducted using posttest-only control group design: participants were randomly assigned to two groups, control and intervention, and were presented with two different stimuli (a gendered and a gender-neutral one). Convenience sampling has been adopted for this research and an online close-ended response questionnaire was used for data gathering. A total of 152 responses were ultimately used in the study. The study challenges the argument that gender stereotypes are efficient tools to be used in communication to elicit a positive response and generate clearer brand associations in the viewer. The results showed how a gender-neutral type of communication has an overall positive effect on Brand Equity dimension, and how this result varies according to the age range of respondents.

Keywords: gender, gender-neutral, brand equity, fashion, marketing

Introduction

One of the very first topics addressed by the work is the debate about the term "Gender". Different authors have voluntarily avoided trying to give universal meaning to the term, considering it more as a question, or a starting point for further analysis. Others have tried to define gender more precisely, according to either a

generalist approach, which affirms the presence of common characteristics, conditions and experiences among men and women, which eventually end up in differentiating some individuals as men and some others as women, or to a particularistic perspective, which argues that gender is constructed independently of these “common criteria”. Afterward, the main steps of the so-called sex/gender debate have been discussed in detail: from an early existentialist approach, according to which masculinity and femininity are different by nature, until reaching the “doing gender” perspective of West and Zimmermann (1987), where gender is considered as something socially constructed, which differs across cultures, contexts and periods. The essentialist theories have often been criticized by modern literature for their attempt to establish, through the imposition of a universally accepted narration of the gender, a discriminatory type of society, that is referred as *ordine veterosessuale*. According to the essentialist theory, the division between men and women, therefore the validity of the binary paradigm, derives from the observation of objective reality. Nevertheless, our understanding of the world always goes through the mediation of a culture; a culture, in turn, is constructed through communication, and it is through communication that we know how to split the world into categories and how to interpret reality. In the specific case of gender categories, it happens that the categorization of reality has been always influenced by the strong patriarchal connotation of society. Therefore, the naturalization of the man/woman binomial, which is instead created by society, leads to the acceptance of some characteristics as necessary and immutable, while in reality, they are just functional in maintaining the social order which originated them.

Today it is generally recognized that gender is a fluid concept, something constantly reshaped through social interactions, which concerns the expression of the self. In the same way, it is universally understood how fundamental in its social function, on a communicative level: from politics to business, to embrace, ultimately, the entire collectivity, gender differentiation has represented a fundamental differentiation for efficiently delivering messages that are consistent with the chosen receiver. For this reason, gender has always been inevitably linked to fashion, for its ability to create and modify continuously individuals’ identities, precisely by exploiting gender relations which stand at the base of society, eventually affecting the same notions of masculinity and femininity. For this reason, gender has always been inevitably linked to fashion, for its ability to create and modify continuously individuals’ identities, precisely by exploiting gender relations which stand at the base of society, eventually affecting the same notions of masculinity and femininity. As Crane (2000) highlights, one of the principal messages conveyed by fashion and clothing style is the perception of gender roles by the individual and by society as a whole.

The analysis of gender roles and related behaviors has always been a critical tool for marketers, especially in the fashion industry, who wanted to easily segment their audience. Darley and Smith (1995) identified three main factors for which gender has been always used in marketing segmentation: gender segmentation is easily identifiable and accessible, and each segment comprises on average half of the

population. Gendered advertising continues to constitute a major part of the current panorama, with the previously mentioned binary scheme which still constitutes a useful framework for the construction and delivery of the marketing message. However, many authors highlight how, in the so-called era of post-modern marketing, gender identities have increasingly become a malleable instrument of self-expression, with the very meaning of masculine and feminine deconstructed and reused to create new significances. Smartest brands have started to answer to the consumers' request, in particular from Gen Z and Millennials, to embrace a more gender-fluid style of communication; with the challenge of traditional patterns and the creation of new paradigms, it is crucial for brands to adapt to these changes. The Luxury and Fashion industry has been a vanguard in spreading this revolution, with brands tackling the issues in mainly two ways: some have labeled themselves as unisex, while others have challenged explicitly gender stereotypes.

When it comes to the topic of gender fluidity associated with children, the debate becomes even more heated. As gender is one fundamental part of everyone's identity, the question on whether to raise kids outside of traditional gender boundaries, in order to give them enhanced freedom to express themselves, is still generating lots of different answers, from opposite points of view. Since researches that have been done up to now have provided significant data in support and opposition to an ungendered education pattern, there is no definitive answer to this social discussion. It is undeniable that the whole debate touches also the world of children's clothing, being apparel, as already stated, one of the fundamental means of expression of the gender identity of individuals. This idea of dressing children with a gender-neutral outfit, contrary to common belief, constituted the norm for a long time, as boys and girls used to wear the same clothes, usually made of white cotton, easy to bleach and non-restricting. At the end of the war, marketers started to understand the need to create a code for children's apparel, to appeal to mothers and convince them to buy more merchandise, and that's when the current blue/pink gender code has been set up. Despite this "color shift" could appear as irrelevant, researches have demonstrated that this fact has contributed to increase gender stereotyping in the U.S., making children aware of the importance social distinction of gender, and encouraging them to question themselves on what is "for boys" or "for girls". This gender-colors association, despite being assimilated today as a usual marketing tool, risks to expose gender non-conforming kids to mockery by society, just for the reason that they have a different color preference respect to the mass.

The awareness of such issues is fundamental for those brands which want to stay competitive in a long-term perspective. It is clear how the role of the brand has undergone a substantial change over the years. From being a simple guarantee of quality, a whole new universe has begun to open behind the process of "branding". Today, companies are experiencing growing pressure from their consumer base to get involved in the most relevant socio-political issues, taking a strong stand in the debate. Companies should be aware of the main social issues which are developing around them, in their specific sector or industry, and should be ready to provide convincing responses to critiques and showing and demonstrating an authentic

purpose by keeping a reserve of proactive initiatives on those issues. This additional dimension can be summarized by the word “Purpose”, which far from remaining just a trend, is being more and more considered as a norm to which companies should adapt in order to obtain positive responses from the engagement of their customers. A strong Purpose is capable of increasing customers’ loyalty, as already mentioned, and also of expanding the current customer base, as new consumers would be more willing to try the products. Almost 60% of Gen Z or Millennials worldwide believe in the importance of companies’ social responsibility, particularly related to human rights, race, and LGBT rights, with respect to a smaller 50% of Boomers (Accenture, 2018). This is a fact to be taken into consideration, considering, in particular, the Luxury and Fashion industry, as, by 2025, more than half of the entire L&F market will be constituted by Gen Y and Z (Bain & Company, 2018). The sensibility of fashion customers to certain topics is constantly shaping the way the whole industry is moving and this spirit of inclusion and openness to people could not exclude the gender sphere. The strong voice of the youngest consumers’ generations, combined with their growing volume and weight in the market, is pushing companies to work for the creation of a gender-inclusive work environment and a type of communication that turns away from classical gender stereotypes.

Researchers have always been concordant in affirming the positive consequences, for brands, stemming from the use of gender stereotypes as it has been usually associated with more positive associations generated in the consumer and a clearer brand positioning. On the other side, there is still little research on the effects that a gender-free type of communication, alternative to the traditional one, could have on brand dimensions, such as brand equity.

Literature Review and Research Framework

Research Objective and Formulation of Hypotheses

The objective of this research is precisely to test the differential effect of traditional (gendered) and gender-neutral advertising on brand equity. The research’s literature review has shown how marketing communication has a fundamental role in shaping the brand equity of a brand and how advertising is capable of manipulating brand equity, acting on its components (Krishnan 1990, Cobb-Walgren 1995, Aaker & Biel 2013). Therefore, literature provides a solid foundation to structure this research on a conceptual framework which displays a causality relationship between communication and brand equity. A substantial part of the work has been dedicated to the review of main brand equity models, with a summary of the most used dimensions, used by different authors in order to operationalize the brand equity concept. Among the several variables proposed, brand associations and brand attitudes have been found of particular relevance for the purpose of this research. Based on the literature review, it can be stated with the two brand dimensions are universally recognized as two antecedents of brand equity, which have the capability of affecting it, through both a direct and indirect effect (Aaker 1991, 1992; Chaudhuri, 1995; Faircloth et al., 2001, Chang, 2008; Keller, 2013). For this reason, it has been decided to measure the effects of communication on brand equity through these two variables. Throughout the review of existing academic literature, it has

been explored and confirmed the effect advertising has on these variables. Several studies have analyzed how marketing communications can affect brand equity through the manipulation of brand associations and attitude (Ray, 1982; Krishnan, 1990; Cobb-Walgren, 1995; Orth and Holancova, 2003; Feiereisen et al., 2009; Aaker and Biel, 2013; Lieven et al., 2014; Huhmann et al., 2016). The effect of advertising on brand equity is also measured through an alternative channel, that is the one passing from consumer affective response to the Ad. Emotional response to advertising has a direct contribution in the construction of brand equity and a mediating role in the relationship between communication and equity (Gardner, 1985; MacKenzie et al., 1986; Edell & Burke, 1987; Stayman & Aaker, 1988; Brown and Stayman, 1992; Bravo et al., 2007; Kim, Ratneshwar and Thorson, 2017). Briefly summing up, these considerations led to the formulation of the following research's hypotheses:

Table 1 - Research Hypotheses

<i>H₁: Gender-Neutral Communication impacts Brand Equity</i>
<i>H₂: Gender-Neutral Communication impacts Brand Associations</i>
<i>H₃: Gender-Neutral Communication impacts Brand Attitudes</i>
<i>H₄: Gender-Neutral Communication impacts Emotional Response to Advertising</i>

Design

The proposed theoretical framework suggested the adoption of a causal type of research design, for this study. Causal research, also called explanatory research, allows to better investigate the nature and the magnitude of relationships which are based on a “cause-and-effect” principle. Since our purpose is to analyze the causal effect of marketing communication on the brand equity dimension, this research methodology appears to be the most suitable one for this scope. The nomothetic causal relationship which wants to be demonstrated through this study has been expressed through the proposed hypotheses. The research of primary data for such type of researches is generally made through experiments, and a questionnaire was set up to answer the research question. The use of the experimental study allows to control for external factors which could incorrectly affect the results of the research. The model chosen for the design and implementation of the questionnaire is the posttest-only control group design. In order to observe the differential effect between gendered advertising and gender-neutral one, it occurred the necessity of setting up two separate groups, one for control and one for intervention. The comparison between two groups is considered as one of the fundamental elements of experimental design.

Despite a quantitative type of research like the one proposed here usually requires a probability sample, for a matter of costs and time, convenience sampling has been considered as the most appropriate sampling strategy to use. Literature demonstrates how convenience sampling, though being a nonprobability sampling strategy, is used in both qualitative and quantitative research (De Carlo, 2018). Participants were divided among the control and the intervention group, thanks to the tools of Qualtrics, which allows the creation of a single questionnaire, with the

only difference in the stimulus provided, and the random division of respondents into two groups.

Procedure

In order to obtain the information needed for this research, a quantitative type of questionnaire with closed-ended responses was prepared. The proposed survey was exactly the same for the control and intervention group, with the only difference lying in the stimulus displayed to the respondents: a gendered one in the first case, and a gender-neutral one for the latter. The two stimuli were meant to be different in the representation of the children in the particular context; children characters are portrayed through gender stereotypes in the first setting, while depicted without this stereotyped frame in the second situation.

Materials

The stimulus provided to the respondent is a visual one. Literature has widely confirmed how the visual medium is particularly effective in the transmission of information, as people tend to recognize and process images faster than what they do with words and with less effort. According to Rashotte (2003), the visual representation of a non-verbal act or behavior is more impacting than its written description. Furthermore, the processing of visuals and emotions happens in the same area of the brain, and that is the reason why these two things are connected and end up generating long-lasting memories and strong impressions. To overcome the difficulty in finding two images which could represent an adequate stimulus for the sake of research, that is to say, capable of respecting the previously mentioned “laboratory conditions” of the experiment, the visual stimuli for the survey have been created *ex-novo* with photo mounting and editing. This allowed to control for external variables which could somehow affect the final result. The first image presents a gender-stereotyped setting, while in the second one the stereotypes are removed, to represent a more gender-neutral situation.

Measurement

The tool used to measure the variables involved in this experiment is the well-known Likert Scale. Likert scale is one of the most used rating scales, used in the measurement of people’s attitudes toward a statement, more precisely the degree to which an individual expresses himself as favorable or not to it. For the sake of this study, it has been decided to adopt a 7-points Likert scale for the measurement of the variables involved. With respect to brand associations, the study has been referring to the work of Lassar, Mittal and Sharma and the scale they developed for their research on the measurement of CBBE. For the purpose of the study, greater attention has been placed on the analysis of three particular dimensions, among the five provided in the scale, namely social image, trustworthiness and attachment. Therefore, from an original set of 17 items, we ended up in adopting a scale of 10 items, in order to measure brand associations. For what concerns brand attitudes, the creation of a measurement scale has been again the result of a review of different studies. The proposed scale comes from a meta-analysis of the work from Miller (1971), Flaherty and Pappas (2000), Yoo and Donthu (2001), Chang (2008) and Van

Horen and Pieters (2017), resulting in a combination of the items suggested by the different authors. With regard to affective response to ad, the present research refers to the work of Kim, Ratneshwar and Thorson (2017) and Green and Brock (2000), as reported in the *Marketing Scales Handbook* of Bruner (2019).

Data Analysis and Discussion

Data Summary

Overall, 211 people participated in the study, taking part to the questionnaire. Among these, 152 managed to fully complete the survey (72%), on a total of 211 interactions. Thus, 59 responses were not taken in consideration, because they were incomplete and could generate biases in the data analysis. People were heavenly divided among the 2 groups, resulting in 76 valid responses for the control group, and 76 for the intervention group. Again, the two groups resulted in a balanced composition. The control group was composed for 51.32% of males, and 46.05% of females, while in the intervention group, these percentages were exactly inverted (46.05% males and 51.32% females). Roughly half of both groups was represented by young people between 18-25, who accounted for 51.32% of the control group and 44.74% of the intervention group.

Reliability Analysis

Reliability analysis of the three scales used in the study has been run on SPSS. The objective of this analysis was to test the overall reliability of the scales, and the single contribution of the different items. This methodology allows to test for internal consistency reliability, measured through Cronbach's alpha coefficient, which is expected to be above 0.70 to be acceptable, and equal or greater than 0.80 to demonstrate even stronger reliability. All the scales adopted in the study had been already tested for reliability, with positive outcomes, and used in different studies.

Table 2 - Reliability Analysis Results

Scale Used	Cronbach's alpha value
Brand Associations	$\alpha = 0.950$
Brand Attitudes	$\alpha = 0.960$
Emotional Response to Advertising	$\alpha = 0.954$

ANOVA Testing

The objective of the study was to determine if there could be any significant difference in the mean of the two groups, following the exposition to two different visual stimuli. In order to do that, data gathered with the survey were exported on SPSS and then analyzed through a one-way ANOVA (Analysis of Variance).

In this analysis, a significance level of 0.05 was adopted, meaning a 5% risk of incur in a type I error.

The F-test run on the three dependents verified the equal variances assumption for each of the variables involved. In each case, the test confirmed that the hypothesis that variances of groups are homogenous (homoscedasticity of variances) cannot be rejected. The other two assumptions for ANOVA were met as well, namely the assumption of independent observations (each record is independent) and the one

for normality (one-way ANOVA is considered to be a robust test against the assumption of normality if the size of samples is enough large, namely >25). Once the assumptions have been verified, the analysis has gone further with hypothesis testing.

For all the variables involved, it was registered an increase in score in favor of the intervention group. Even though these numbers have been encouraging, considering the objective of the research, the statistical significance of the results had to be checked using the ANOVA test. The analysis of variances brought to the rejection of two null hypotheses, and the non-rejection of the other two.

Table 3 - ANOVA Testing Outcome

Hypothesis	Outcome
H ₁ : Gender-Neutral Communication → Brand Equity	Null Hypothesis <i>Rejected</i>
H ₂ : Gender-Neutral Communication → Brand Associations	Null Hypothesis <i>Rejected</i>
H ₃ : Gender-Neutral Communication → Brand Attitudes	Null Hypothesis <i>Not Rejected</i>
H ₄ : Gender-Neutral Communication → Emotional Response	Null Hypothesis <i>Not Rejected</i>

The result of the test demonstrated that there is no significant effect of gender-neutral communication on Brand Attitudes and Emotional Response to Advertising, while there is a statistically significant and positive effect on Brand Associations and on overall Brand Equity.

Descriptive Analysis

In parallel to hypothesis testing, the analysis on the responses gathered, divided for age range, has been run to answer our second research question. Firstly, a comparison of the mean scores allowed to make a first distinction between the four different age groups targeted for the survey: two groups, namely Generation Z (18-25yo) and Baby Boomers (>60), have appeared to be contributing to the positive gap in mean score of brand equity, in favor of the group of intervention. On the other side, Millennials (26-40yo) and Generation X (41-60) have registered better scores in the control group. In order to give more statistical relevance to the above-mentioned results, independent t-tests were run on dummy variables which wanted to confront the responses obtained. Using the “recoding” option, a new variable has been created, to do a comparison between members of Gen Z and Millennials. Despite not finding enough evidence to confirm the statistical significance of the mean gap (+0.71532) in the intervention group (p value > .05), the software provided a different result with regard to the control group: the gap in mean score among the two groups (-1.25100), relative to the control set, was found to be statistically significant (p value < .05). At the same time, another T-test investigated the differences registered among the age range of Gen Z and Gen X. The result was the same as the one obtained for the previous group: the effect on the dependent

variable was considered not relevant with regard to the intervention group (+0.70728 ; p value > .05), fact that was not true as well for the parallel analysis on the control group (-1.02613), which ascertained the statistical significance of the assumptions previously made (p value < .05).

Results

The study, despite presenting contrasting results, demonstrated the significant impact generated on brand equity by gender-neutral communication. Contrary to what sustained by a great part of the literature reviewed (see paragraph 2.2.4), which always affirmed the importance of stereotyped representation of masculinity and femininity in generating clear and positive associations in the viewer (Lieven et al., 2014; Fugate & Phillips, 2010), this research demonstrated how a communication stimulus deprived of those stereotypes is capable of building clearer and stronger associations than its gendered counterpart. Surprisingly, despite a similar change of mean, null hypotheses related to Brand Attitudes and Emotional Response to advertising were not rejected. The result is particularly unexpected if we consider that the hugest gap in mean score was registered precisely for Brand Attitudes variable. A lack of evidence for demonstrating significance for both dimensions, could be due, as suggested in the paragraph about “study limitations”, to the low suitability of some items to the specific context of research and, most of all, to the stimulus proposed in the survey. It is reasonable to assume that, given only the visual stimulus proposed, for respondents, it was quite difficult to provide a valid score to questions of the scales. The dimension of Emotional Response deserves, in addition, a separate consideration: the use of an image, although respecting the experimental conditions, has been likely to not being enough to stimulate viewers’ emotions and allow them to correctly select the scores relative to this variable. Probably the most important result, considering which was our first declared objective of the work, has come from testing the main hypothesis, H_1 , that gender-neutral communication affects overall brand equity. In addition, to confirm a positive effect of the factor on the reference variable, the ANOVA definitively proved the statistical significance of the change in the group subjected to the treatment. This outcome seems in contrast with a large strand of literature which considers gender stereotyping as a pivot point for the elicitation of clear gender positioning in companies’ communications, and consequently, as a guarantee for greater brand equity (Lieven et al., 2014). Besides, for what concerns the capability of advertising and communication in general to affect CBBE, it seems, all things considered, that this effect is stronger if conveyed through Brand Associations (Krishnan, 1990), that through Brand Attitudes (Cobb-Walgren et al., 1995; Aaker & Biel, 2013).

What emerged then from the descriptive research, is essentially a substantial and significant gap between Gen Z and Millennials, and Gen Z and Gen X and on the gender issue. Different studies, among which one from Pew Research Center, seem to confirm the fact that Gen Z’s perspective on gender non-conformity represents a fundamental divide between this generation and the previous one. The results could be interesting, also if it is considered the importance of Millennials and Generation X

as the consumers responsible for the purchase of the majority of goods reserved to children, thus including also children apparel. An outcome as the one proposed by this study could signify that the actual generation of parents is still not ready for a paradigm change, and still anchored to traditional codes of children's clothing.

Conclusion

The study has made evident how classical stereotyped representations of gender could no more be considered as a useful and efficient tool to be used recursively in communication. As great progresses were made since the time where women were depicted as completely subordinated to the male figure and relegated to determined settings and activities, it is likely to expect that marketers will make further steps in this direction.

Brands themselves should take the role of social institutions, in bringing forward the main social battles for which new generations of consumers care more. Remaining in the middle, without taking a clear stance on major social concerns which, at first sight, could seem to do not affect directly the business, are likely to result in a long-term unsuccessful strategy. The fashion industry has demonstrated to be a vanguard in this sense, as many big players of the industry have affirmed themselves as the promoters of social stances and values.

Particularly important, in this sense, will be the role played by companies in children apparel industry. Breaking the use of this technique is the first step in order to avoid constricting children into that binary paradigm, as well as an opportunity, for brands, to differentiate themselves in a sector where gendered apparel is still prevalent. Further considerations have to be made precisely on these consumers of the future, who have demonstrated to be particularly sensitive to gender-related issues. Gen Z's involvement in social causes related to gender issues is stronger than the one of the past generations.

The results have then highlighted a fundamental gap of literature on the issue; more specifically, decades of academic literature have strongly affirmed the importance of gender stereotyping as a tool capable to enhance brand equity and elicit positive responses from viewers. It is therefore desirable that academic literature on the issue will move toward a paradigm shift, focusing more of its research effort on an alternative and gender-free type of communication.

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The Impact of COVID-19 on Consumer Behavior in the Luxury Industry

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Abstract

The following paper is aimed at understanding how the COVID-19 pandemic has changed consumers' attitude towards consumption of luxury and discretionary goods, what are the consequences of these disruptions, and what strategies brand can employ in order to survive in a post-pandemic future. This situation served as a catalyst to accelerate some of the True Luxury Consumer trends that were beginning to gain popularity in the past few years, such as the prioritization of experiences over physical items, resulting in a tendency towards minimalism; the increased interest in sustainability, ethics, and the Corporate Social Responsibility commitments of brands; the enhanced use of online distribution channels, and the consequential need for a seamless omnichannel strategy which could effortlessly and efficiently replicate the offline, in-store experience on digital platforms; and, finally, the emergence of new ways to experience luxury goods which prioritize accessibility over ownership, such as the second-hand market for luxury as well as luxury rental services, like Rent The Runway. The pandemic has highlighted a series of issues in society, healthcare, and businesses; the consequences of these issues have been tragic, but also eye-opening for brands as well as consumers. In the clients' perspective, big companies hold the responsibility to not only provide a product or a service, but also to be helpful assets to their communities. Brands should live up to these expectations, not just to survive in the "new normal", but also to genuinely help build a better future once the dust settles.

Keywords: COVID-19, luxury industry, consumer behavior

Introduction

The outbreak of the COVID-19 pandemic has represented an unexpectedly disruptive turn of events for the world. As infection rose, entire countries being quarantined, and people were forced to wear masks on a day-to-day basis, society as a whole experienced an incredible shock. The crisis was not only related to health care systems all over the world collapsing due to the overwhelming number of cases;

following the lockdowns and the travel restrictions, the world economy entered its biggest recession since World War II (World Bank, 2020).

In such a tragic context, all sectors and industries began experiencing the consequences of a system that had long been requiring change and rewiring. Discretionary sectors, like luxury, seemed to be the ones that were hit the hardest as their systems could not handle the pressure and the disruption that was brought on by the crisis. Granted, the luxury was already going through some dramatic changes even before the pandemic hit; in the *State of Fashion 2020* (McKinsey and the Business of Fashion, 2020), published in November 2019, when the world had not managed to fully understand the severity of the situation and the state of emergency had not yet been announced by the World Health Organization (WHO), industry experts did not seem too optimistic about the future of luxury. For a few years now, luxury had been struggling to catch up with some industry-shaping trends like the crafting of a seamless omnichannel experience, the generational shift which completely transformed its demographic, the new expectations on sustainability and social commitments, and the slow but sure rise of a new concept of “accessibility over ownership”, which led to the increase in popularity of alternative systems of consumption, like rental services.

The outbreak of the pandemic accelerated the rise of those trends, as well as exacerbating some of the systemic issues with the luxury fashion industry as a whole: supply chains were slowed down or even broken for not being flexible enough, and inventory began stacking up as stores started closing; many luxury fashion companies, like Valentino, decided to interrupt their leases as their sales started dropping down, and the luxury sector experienced its “Worst Quarter Ever” in July 2020. Furthermore, the crisis enhanced the divide between luxury’s “top players” and the smaller businesses, exasperating the polarization of an already fragmented industry. In an open letter to WWD, Giorgio Armani called out all the problems of an industry, one which has seemingly forgotten what it stands for and encouraged fellow players to slow down, look around, and take the crisis as an opportunity to rethink their motivations and rewire their flawed systems in order to successfully bounce back once the dust settles, not only for the sake of the industry but also for their local communities which have been heavily affected by the crisis (WWD, 2020).

Indeed, it was the people who took the biggest hit from the situation. Financial uncertainty and health concerns, the collapse of healthcare systems, as well as spending long periods of time forced inside their own homes, are all elements which have had a heavy psychological impact on the general population. People have found themselves in a situation where everything had become alien, uncertain, and different, even the most mundane of tasks; this led to a decrease in perceived control (Li, Mo, et al., 2020; Burger, 1989) and consequentially, a change in priorities. These changes are often reflected in spending behavior, which resulted in panic buying (Loxton et al., 2020), consumption displacement (Hall, Prayag, et. al., 2020), and herd behavior (Loxton et al., 2020; Kameda & Hastie, 2015). Historically, it has been

proven that, during periods of crisis, consumers tend to limit and re-evaluate their spending patterns as they focus on the needs at the base of Maslow's Hierarchy of Needs (1943). This shift in focus then translates into behavioral changes that prioritize the consumption of essential products over discretionary ones.

The current crisis is expected to transform people's perception of luxury and their interest in luxury brands, as consumers seem wearier and distrusting towards companies, even showcasing patterns of resistance, consistent with Kotler's observation of anti-consumption behavior (Kotler, 2020). This kind of attitude has been observed in the past as a response to societal and environmental concerns; however, a recent study published by the *Journal of Global Fashion Marketing* (Ozdamar Ertekin et. al., 2020) explored the cause-effect relationship between economic crises and the display of anti-consumption, especially in the context of purchasing fashion items, and found that there are many ways people exercise anti-consumption in the face of financial uncertainty, namely by turning to vintage selling and buying, reusing and altering their old clothes, switching brands, and even putting off purchasing by further analyzing whether that item is worth their money and satisfies a particular need.

On the other side of the spectrum, there is the phenomenon of "revenge buying" (or "lipstick effect"), which has been displayed in luxury consumers – notably in China and South Korea – following the re-opening of physical stores, and could be traced back to the concept of luxury consumption as a form of escapism (Seo & Buchanan-Oliver, 2019). According to a report by the Boston Consulting Group & Altagamma (2020), COVID-19 has opened doors to a series of new trends in luxury consumption as people try to adjust to these new concerns. The report signals some accelerating trends, which are the divide between Western and Eastern world when it comes to luxury and style; the prioritization of sustainability; the digitalization of luxury and the omnichannel experience; and, lastly, the concept of "accessibility over ownership", which has become overwhelmingly popular among younger demographics.

This study aims at identifying how this perceived loss of control has affected luxury consumers, whether their consumption patterns have changed and, in that case, how they have changed, what are their motivations for purchase in the current context, and whether it is safe to assume that the consumer trends which had been identified before the start of the pandemic could be relevant even after the outbreak. The research was conducted by interviewing a sample of 255 consumers and investigating their preferences and habits on four main topics: (1) reduction in consumption following the crisis; (2) their perception on sustainability and sustainable practices, and whether these could be an incentive for purchase in the COVID-19 context; (3) the employment and importance of online channels in maintaining social distancing; (4) their attitude towards alternative consumption systems, such as second-hand luxury and rental of luxury goods, in the context of the global pandemic.

Method

Participants

Two hundred and fifty-five participants were interviewed for this type of study. Participants came from all demographic backgrounds in terms of gender identity, age range, educational level, language, and nationality.

Design

The questionnaire was divided into four question blocks, all which related to one specific topic of the research. The first block addressed the question of whether luxury consumers also started to change their lifestyle and adopting a more minimalistic approach to consumption, the second was aimed at investigating whether the shift in behavior also resulted in a more sustainable mind-set. The third batch of questions concerns distribution channels, and most importantly online channels, whereas the fourth section inquired on whether people, encouraged by the health and financial crisis, would be more interested in moving on towards different consumption practices, such as buying second-hand luxury or luxury renting.

Procedure

Participants were sent a Qualtrics link to access the survey and were instructed to answer the questions as truthfully as possible, fully aware that their responses were going to be utilized for the purpose of this study. The questions were multiple choice questions, as well as Likert scales. The final results of the interviews were then processed and analyzed by using the IBM SPSS Statistics software, version 27.

Frequency Tables

Table 1 – Frequency Table (Gender)

	Frequency	Percent	Valid percent	Cumulative percent
Male	63	24.7	24.7	24.7
Female	192	75.3	75.3	100.0
Total	255	100.0	100.0	

Table 2 – Frequency Table (Age in Years)

	Frequency	Percent	Valid percent	Cumulative percent
0-18	12	4.7	4.7	4.7
19-25	128	50.2	50.2	54.9
26-50	63	24.7	24.7	79.6
51-65	47	18.4	18.4	98.0
> 65	5	2.0	2.0	100.0
Total	255	100.0	100.0	

Total number of participants was 255. From the data it emerges that 75.3% (192) respondents identify as female, and 24.7% (63) identify as male (*Table 1*). When it comes to age, the questionnaire gave the option for the respondents to select their own age groups; the respondents were divided in 5 age range: (1) from age 0 to 18,

which represented 4.7% (12) of the population; (2) from 19 to 25, or generation Z, which represented 50.2% (128) of the sample; (3) from 26 to 50 years old, or Millennials, which comprise the 24.7% (63) of the population; (4) from 51 to 65, or generation X, making up 18.4% (47) of the population; (5) and over 65 years old, which make up a very small sample of the population, 2% with only 5 people belonging to that specific age group (*Table 2*).

Results and analysis

Changes in consumption habits

The results showcased that the majority of people either stopped spending on discretionary items completely (Highly decreased, 29.8%) or have Slightly decreased their consumption of non- essential items (42.4%), while only 24.4% of respondents have reported no change in their spending of discretionary goods, and only 3.5% have stated that their consumption of non- essential goods has increased ever since the pandemic hit, thus confirming the first research question (*Table 3*). Results also showed that people who had been reducing their consumption as a consequence of the crisis have also experienced a change in the priorities and determinants that they keep mind when evaluating the purchase of a certain brand; a contingency table analysis has proven that the majority of people who have chosen to reduce their consumption have also started prioritizing transparency, company culture, ethical commitments, the presence of discounts, and quality as opposed to factors such as reputation.

Table 3 – Answers to the question: How much has your spending on non-essential goods changed in the COVID-19 context?

	Frequency	Percent	Valid percent	Cumulative percent
Highly decreased (I have decided to give up on discretionary goods for now)	76	29.8	29.8	29.8
Slightly decreased (I am less willing to buy non-essential goods, but have no intention of giving them up completely)	108	42.4	42.4	72.2
It has not changed	62	24.3	24.3	96.5
Increased (I am more willing to buy discretionary items)	9	3.5	3.5	100.0
Total	255	100.0	100.0	

Sustainability

As for sustainability, the questionnaire also aimed at investigating whether the shift in behavior also resulted in a more sustainable mind-set. Respondents were asked to state whether they agree or disagree to a sentence stating that the COVID-19 pandemic has made them more conscious of the consequences that their discretionary spending has on the environment and on society, and whether they would use this realization as a catalyst in order to become more sustainable in their consumption (Figure 1). The results showed that 29.0% (74) chose Strongly agree, the 30.2% (77) chose Agree, and the 23.5% (60) chose to Somewhat agree with the statement, meaning that more half of the survey population has chosen to re-evaluate their priorities and change their consumption habits towards a more sustainable pattern. Making a simple bivariate correlation test on the results, it is possible to see that there is a positive correlation between people who have reduced their consumption and people wanting to be sustainable, suggesting that there is also an ethical motivation behind their reduction in consumption.

Rate the extent to which you agree with the following statement. “After the COVID-19 emergency, I have become more conscious about the social and environmental damage caused by the consumption of discretionary products, and I want to adopt a more sustainable lifestyle.”

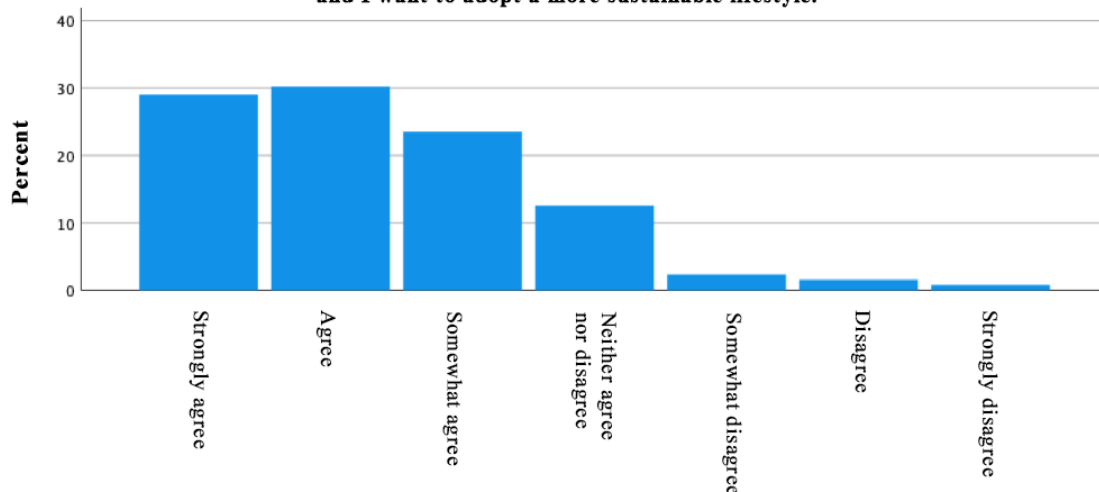


Figure 1 –Rate the extent to which you agree with the following statement. “After the COVID-19 emergency, I have become more conscious about the social and environmental damage caused by the consumption of discretionary products, and I want to adopt a more sustainable lifestyle.”

Online channels

Results showed that a consistent percentage of people (36.5%) prefer to buy from flagship stores; however, when it came to shopping during lockdowns, the majority of the people stated that they found themselves reevaluating the importance of online channels. Indeed, 22.7% of people answered they were Extremely important, 16.9% chose Really important, with only a small percentage stating that it was either Not that important or Not important at all (Figure 2). Overall, it seems that there is still a bit of resistance towards the employment of online channels for luxury goods purchase, especially in the older portion of the demographic. This could be because there is such an emphasis in luxury on the craftsmanship, on the relationship, and on the personalization of the experience, all things that are different to translate on a virtual plane.

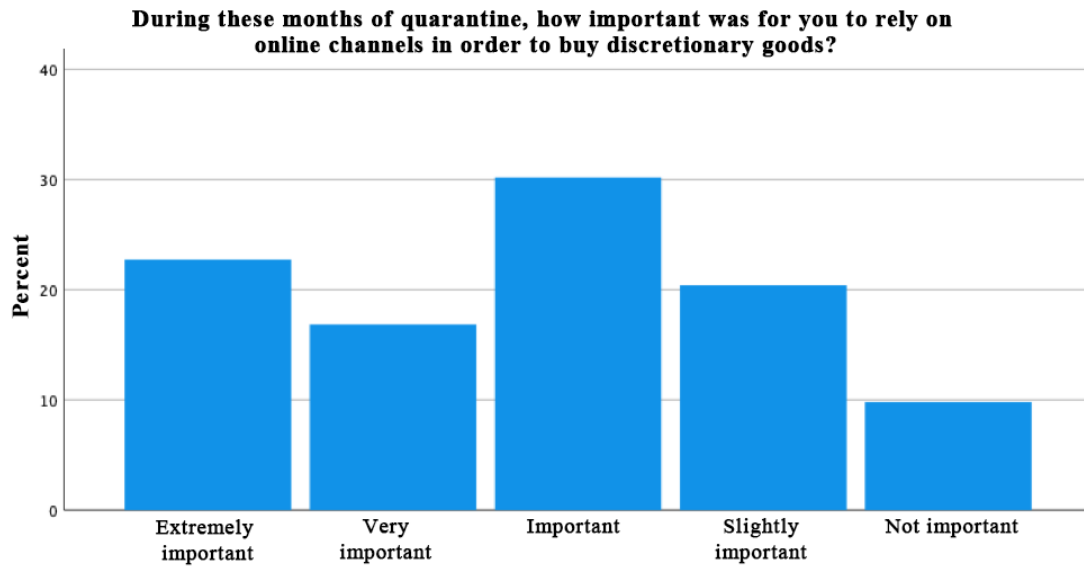


Figure 2 – During these months of quarantine, how important was for you to rely on online channels in order to buy discretionary goods?

Second-hand and luxury rent

For second-hand, the results suggested that while a really small portion of the sample showed their willingness to participate in the vintage market as buyers, many of them were interested in reselling their own pre-owned luxury items. When asked what were the characteristics of second-hand luxury which played a role in discouraging them from engaging in the purchase of vintage items, the most popular response was that the majority of people (45.5%) did not like the fact of owning pre-owned items, while 38% of people was concerned about potentially purchasing non-authentic products and paying them at a premium price, and 16.5% found that items did not fit their taste or their size (Figure 3).

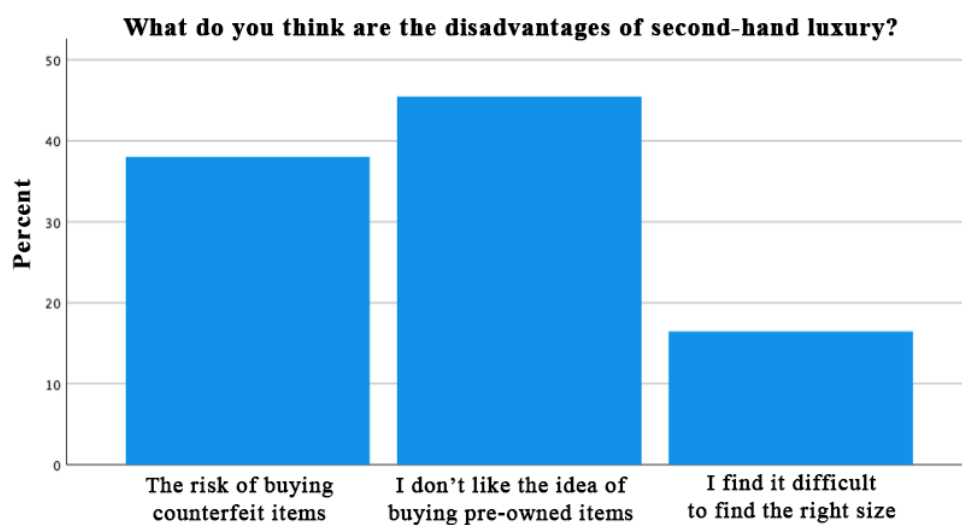


Figure 3 – What do you think are the disadvantages of second-hand luxury?

For rental, the responses were quite similar in the sense that the majority of the people (54.9%) would prefer owning the items. Overall, when asked to choose between the alternative consumption practice that they would rather use in the context of the COVID-19 pandemic, 69% (176) of respondents have shown preferences towards buying second-hand, while only 31% (79) have stated that they would prefer to rent their luxury items in the context of the crisis (Figure 4).

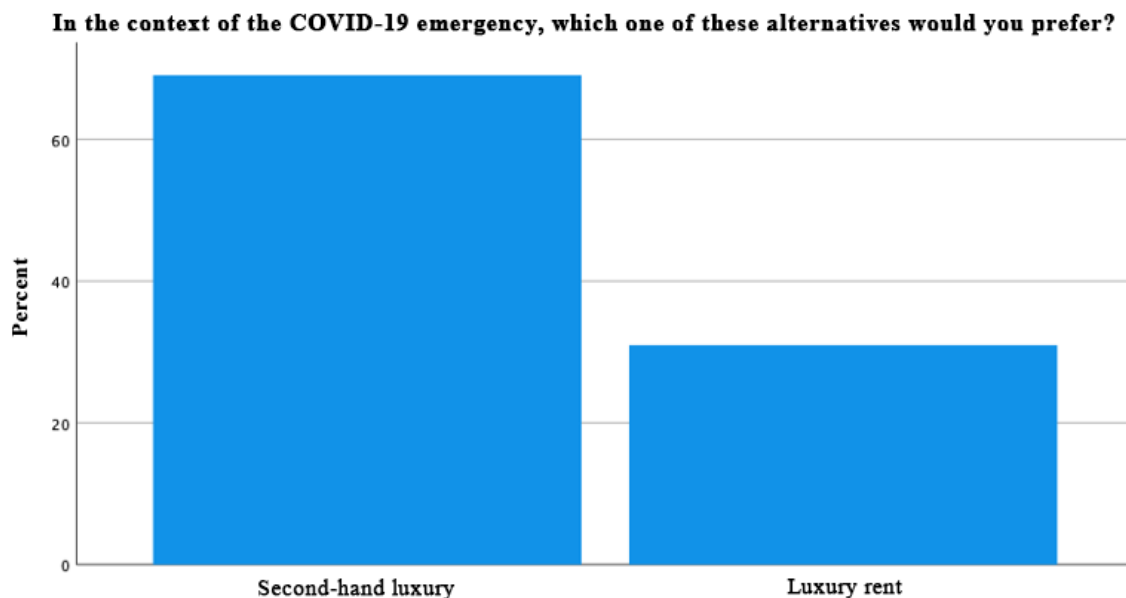


Figure 4 – In the context of the COVID-19 emergency, which one of these services would you prefer using?

Discussion on the findings

It is notable that there is a difference between how consumer behavior has changed in relation to luxury goods compared with essential goods. Consumption levels have been significantly reduced from customers, due to the discretionary nature of the goods in themselves; as their priorities changed, they also seemed to shift towards a behavior which supports their sustainable and ethical goals, which also include the social commitments of brands in the context of the pandemic. They now prioritize quality, transparency, and durability more than trends and popularity, which suggests a change in the perception of the self-actualizing aspect of luxury, one that was already happening before the crisis and was empowered by the context (Seo & Buchanan Oliver, 2019). As for online channels, there is still some resistance towards shopping online for luxury goods: this could be motivated by the fact that the experience online is not comparable to the in-store experience, as it could take away the dream-like nature of the luxury consumer journey.

In this context, brands need to change their strategy in order to simulate the same magical environment online by crafting a seamless omnichannel strategy, more focused on storytelling, heritage, and personalization even in online channels. The idea of “accessibility over ownership” has also been challenged by the pandemic: people are now more concerned with what they bring into their homes in light of the

fear of infection, and are less willing to purchase or rent items that have been previously used by other people. Overall, it seems that in the current context the most profitable approach for brands is investing in the second-hand market, rather than in fashion rental, as consumers seem more willing to participate in that market, whether their objective is to save money, be more considerate of the environment or even collectability; however, the reason why a lot of people are hesitant to purchase second-hand goods is the lack of an authenticity certificate. Brands should exploit the growth and potential of this market and try to provide the option for consumers to safely buy second-hand on brand-owned channels.

Conclusions

For brands in the luxury industry, the crisis has also been an opportunity to look at the sector's problems. The biggest one, which has also been pointed out by Giorgio Armani's open letter, has been the fast-moving pace of the industry as a whole, which does not seem appropriate for a field that prioritizes craftsmanship, quality, durability, and timelessness, all things that require time and attention.

According to the Edelman Trust Barometer (2020), the majority of consumers have transformed the way they view brands following the pandemic, believing them to be trustworthy entities that will do their best to untangle the difficulties that society is facing during these unprecedented circumstances. Brands must live up to this consideration, not only for their personal benefit and to build a stronger relationship with their clients, but also to genuinely provide aid and make a change for the better after such an unbelievably disruptive event.

As cases continue to rise worldwide, the possibility of consumer behavior and psychological approach to consumption being completely transformed after the dust settles is stronger and stronger each day. Both brands and individuals need to understand how to live and deal with these changes and adjust their actions in ways that can be beneficial for their communities in the long term after the crisis is finally over.

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Role of Social Media Content Imagery, Vividness and Interactivity in Driving Content Attractiveness

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Abstract

The growth of Integrated Marketing Communication and the increasing use of social media by brands makes it vital for organisations to understand the nuances of the social media content, use appropriate tools for generation of the same, and drive consumer engagement, trust and participation. For this, brands need to focus on social media content characteristics which will make the content attractive to consumers as well as help brands in enhancing their reach and visibility. The three most important content characteristics are *Imagery* (Robinson et al., 2017), *Vividness* (Fortin, 2005) and *Interactivity* (Smith, 2010). Brands need to have the right mix of *Imagery*, *Vividness* and *Interactivity* in driving content attractiveness. *Imagery* constitutes a memory technique that involves stimulation of mental images of products and brands in the minds of the consumers (Rositter, 1982). Social media content with superior imagery triggers high brand recall and brand memorability. *Imagery* can be visual, auditory, kinesthetic, olfactory and gustatory. SMCV (Social Media Content *Vividness*) addresses the richness of a social media post. Higher the richness of the social media content, greater the ability of the content to appeal to all senses. *Vividness* encompasses the depth and breadth of a social media message (Kujur et al., 2017). Enhanced vividness of social media messages favourably impacts consumer attitudes towards products and brands and increases brand recall. Social Media Content *Interactivity* is one of the most important dimensions of social media and is the degree to which unidirectional or bidirectional communication is facilitated by a particular medium. This article proposes a Regression model pertaining to *Brand Social Media Attractiveness* using the above three components of Imagery, Vividness and Interactivity. Brands need to have the right balance of Imagery, Vividness and Interactivity to ensure an attractive social media presence.

Keywords: Social Media Content, imagery, vividness, interactivity

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Indigenous Conflict Resolution and Peace-Building among the Nabdam of Ghana

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Abstract

Harmonious living is an essential ingredient for the progress of every society. This requires that conflicts which are a natural part of human life are amicably resolved when they arise. Largely, people have the options of resorting to the statutory courts system or indigenous approaches which are rooted in the customs and traditions of societies for the resolution of conflicts. This study examined the indigenous conflict resolution, peace-building and human rights among the Nabdam of Ghana using the descriptive design within the qualitative research paradigm. It involved thirty persons from the area consisting chiefs, elders, and individuals who have employed the approach in resolving their disputes. The instruments of interview, focused-group discussion, and observation were deployed to gather data for the respondents. It emerged from the study that the Nabdam indigenous approach to conflicts resolution has four stages which are structured and followed to achieve peace-building and the recognition of human rights of persons involved in the process. It was therefore considered important for the indigenous approach to be strengthened and promoted by the government of Ghana in all societies in the country so as to achieve peace-building. It also emerged from the study that the Nabdam indigenous conflict resolution approach has no formal place for the involvement of women in its administration even though they were found to be effective in managing disputes especially those involving women. It was therefore concluded that women should be formally involved in the application of the approach.

Keywords: Conflict Resolution, Indigenous, Peace-building, Human Rights, Chiefs

Introduction

Conflicts are inevitable in human life. Many African societies are faced with different forms of conflict, including ethnic, land, chieftaincy, marital and inter-personal conflicts. Practically, a huge portion of the populations in most African countries have no means of getting to urban cities to access statutory courts to resolve their

conflicts. Even if they can get to the cities, few are able to afford financial expenses for legal services much needed to access the formal justice system.

But conflicts must be resolved in order to prevent them from escalating into violent actions or distractions and thereby ensure the peaceful, harmonious and stable existence of the society. To this end, apart from the formal government courts, different societies have developed and used different customary mechanisms to resolve conflicts based on their traditions and customs.

In Ghana like in many African societies, customary conflict resolution mechanisms have been developed and employed for a very long time. Again, in Ghana like other African states, formal government courts have been shaped along western model and, therefore, alien to African societies. Due to this, only small numbers of conflicts are taken to and dealt with by formal government structures (Alula & Getachew, 2008). Hence, the customary conflict resolution mechanisms in Africa have played and still play a significant role in resolving conflicts of various degree and thereby maintain the peace of the society.

Different ethnic groups in Ghana have established and used various customary institutions of conflict resolution mechanisms which are unique to their own culture (Gebre, 2011; Alula & Getachew 2008). Studies into traditional ways of conflict resolution in the country have identified that family heads, chiefs, council of elders, and religious leaders/institutions are employing Mediation, Negotiation and Arbitration to deal with conflict (Mensah-Bonsu, 2012; Okrah, 2003). These traditional mechanisms are not only used to deal with conflict among themselves but also with other people living in the country.

Among the Nabdam of Ghana, the use of chiefs and their councils of elders to resolve conflicts is very prominent. Like other African traditional conflict resolution models, the Nabdam indigenous approach (i.e. using chiefs with councils of elders) is a well-structured system which focuses on reconciliation, maintenance, restoration and improvement of social relationships of disputants (Naude, 2010; Murithi, 2009; Mensah, 2005; Okrah, 2003; Ndumbe III, 2001; Choudree, 1999). The strength of the approach lies in its deep rootedness in the customs and traditions of the people and also the peoples' understanding that it often restores balance (Awedoba, 2009; Choudree, 1999). It is also believed to be influenced by the gods/ancestors of the land (Awedoba, 2009). It is also noted for providing a cheap and unintimidating environment to disputing parties for processing their conflicts (Marfo, 2014; Awedoba, 2009).

The legitimacy of the traditional approach to conflict resolution is not only sourced to its credibility among the communities that practice it, but also to the 1992 Ghana Constitution which guarantees the institution of chieftaincy, together with its traditional councils as established by customary law and usage (Article 270), and the Chieftaincy Act, 2008 (Act 759) that empowers the chief with his elders to arbitrate on disputes (Section 30). At the same time, in the Nabdam area of Ghana, there are a few, poorly resourced, and expensive law courts for justice delivery, which have a

reputation of “justice-buying”, power influence, and manipulations (Oquaye, 2013). This reinforces or strengthens the relevance of the traditional approach to resolving conflicts in the Nabdam area.

Statement of the problem

Due to limited resources, individual differences and preferences as well as aspirations, human beings are often in conflict. Conflicts threaten and affect the needed peace in society. The resolution of conflicts is therefore paramount. The process of resolving conflicts is highly crucial for effective outcomes. This is because when persons under conflict resolution processes feel their dignity and rights are compromised, that feeling has a very high potential for affecting the outcomes.

Like any modern society, the state-owned court system in the Nabdam area is manned by professionals who are trained, employed and paid by the state to resolve conflicts of people using the law. Few people in the Nabdam area employ the courts to resolve their conflicts which I presume is due to geographical and financial inaccessibility as well as the fear of “justice-buying”, power influence, and manipulations (Anas, 2017). The traditional approach (i.e. using chiefs with their councils of elders) to conflict resolution is widely used in the area.

With modernization and religious proliferation and also following persistent criticisms (by especially the Charismatic, Protestants and Pentecostals) against traditional practices in the Nabdam area, one would have expected that the traditional socio-cultural chieftaincy institution would demise in power, authority and functions. One would also think that the institution would lose its appreciation by the people and as a result, people would resort to the court system to resolve their conflicts. To the contrary, that is not the case. Majority of the Nabdam people still employ the chiefs with their councils of elders to manage their disputes. However, there is little scholarly knowledge on how the Nabdam traditional approach (using chiefs and councils of elders) effectively resolves disputes for peace-building. There is also little scholarly knowledge on structural and procedural aspects of the model. Again, little is known about the prospect of the traditional approach to conflict resolution in an era of modernization. This work, therefore, provides empirical or researched information on the Nabdam traditional approach to conflict resolution and its usage in the resolution of conflicts and peace-building.

Objectives of the study

The objectives of the study were to:

1. Explore the structural and procedural aspects of the Nabdam traditional conflict resolution approach and peace-building.
2. Examine the role of women in the use of the Nabdam indigenous model to conflict resolution and peace-building.
3. Determine the prospects of the Nabdam traditional conflicts resolution and peace-building approach in the era of religious proliferation and modernity.

Research questions

The research was guided by the following research questions:

1. What are the structural and procedural aspects of the Nabdam indigenous conflict resolution and peace-building approach?
2. What roles do women play in the use of the Nabdam indigenous model to conflict resolution and peace-building?
3. What are the prospects of the Nabdam indigenous model of conflict resolution and peace-building in an era of religious proliferation and modernity?

Theoretical Foundations and Literature Review

Most African societies, if not all, lived communally and were organized along clan, village, tribal and ethnic lines before colonialism. One's belonging to a community was of great relevance, if not downright necessary. Values, norms and beliefs in the society and the threat of excommunication from the society provided chiefs and elders with legitimacy and empowered to sanction through which they ensured their decisions were complied with. Subsequently, social theories have been developed that try to explain why chiefs and elders were able to resolve disputes in such contexts. The Social Capital, Social Solidarity, and Optimal Psychology theories underpin this study.

(a)The Social Capital Theory

The social capital theory provides explanation to the formation of communal societies and the attendant social ties that bind the people together. Putnam and Alone, in theorizing social capital, posits that social networks, bonds, reciprocal duties and trust, bind people together and enable them to coexist (Putnam & Alone, 2000). These social ties have secured the existence and effective functioning of the society over time. Putnam and Alone catalogued two types of social capital: bonding social capital that fastens ties of individual members of a group; and bridging social capital that allows inter linkages with other social groups (Putnam & Alone, 2000). The social capital theory is, hence, effective in explaining the restorative nature of dispute resolution by chiefs and elders in African societies. In most of Africa, chiefs and elders mainly aim at restoring the social ties or social capital that had been broken by the wrong doing. The theory explains that without strong social ties, members in communities would not be able to exist and function effectively. Social capital theory explains that for fear of threat of excommunication from the society, and therefore exclusion from social ties, people refrain from engaging in wrong doing.

(b)Social Solidarity Theory

Durkheim (1933) in his book, the Division of Labour, provides explanation of society in terms of social order and social facts. According to Durkheim, individuals in a society are social actors who are restrained by social facts to stay in society. Social facts exist only if the society can derive benefits from them. Extrapolating this theory to dispute resolution by chiefs and elders, resolving dispute is seen as a social fact

from which society derives some benefit. Chiefs and elders resolve disputes due to their long experience, wisdom and the respect they are accorded in society.

The social solidarity theory, being a functionalist theory, explains the resilience of dispute resolution by chiefs and elders even in modern societies that have embraced western legal systems. Where a community cannot access formal justice systems due to costs and other externalities, chiefs and elders resolve disputes when they occur. Therefore, the existence of chiefs and elders is a social fact in the society providing a dispute resolution utility occasioned by the absence or low penetration of western legal systems.

(c)Optimal psychology theory

Optimal psychology theory uses culture to explain how people view reality, live and resolve disputes (Myers, 1992).It is argued that there is optimal psychology in dispute resolution, when people use their cultures to resolve disputes. As a result, dispute resolution and other real life conditions are sub-optimal when done through a foreign culture. Foreign imposed justice systems such as courts are thus sub-optimal in the African context due to varying cultural context. For instance, while African traditional societies to a large extent are grouped communally, western societies are individualistic. This results in a cultural-conflict if western ideals are applied in dispute resolution. Moreover, while dispute resolution in African societies aimed at repairing social ties and restoring harmony; foreign imposed justice systems are mainly retributive with a winner-loser ideology. This theory is important in understanding the resilience of traditional dispute resolution in modernized and westernized African societies.

The indigenous concept of conflict resolution

Indigenous conflict resolution in African societies exists at different levels right from the family through to the clan and to the community levels. These approaches mainly involve using indigenous institutions, knowledge, and ideas to deal with conflicts. Also referred to as traditional conflict resolution mechanism, indigenous conflict resolution mechanism is defined as the “capability of social norms and customs to hold members of a group together by effectively setting and facilitating the terms of their relationship (Zuure, Beson, & Achanson, 2020), and sustainably facilitates collective action for achieving mutually beneficial ends” (Fred-Mensah, 2005:35). It is a process through which stakeholders take conscious effort to work towards the management of a conflict. The main focus of indigenous conflict resolution mechanism in Africa is on re-establishing the flow of harmonious relationship within individuals, families and communities. Traditional conflict resolution is reconciliatory in nature which is often characterized with symbolic gestures and associated rituals including the exchange of gifts, and slaughtering of animals such as chickens, goats, sheep, and cows (Ndumbe III, 2001). Mbiti (1991) indicates that traditional conflict resolution focuses on creating and restoring the impaired relationship with God, the spirits, ancestors, family and neighbours as the case might be.

Brock-Utne (2001:12) espouses that conflicts must be understood in their social context, involving “values and beliefs, fears and suspicions, interests and needs, attitudes and actions, relationships and networks...”. It is therefore essential to deal with the root causes of conflicts so as to enable shared understandings of the past and present. The focus of conflict resolution especially from the indigenous perspective is as noted by Brock-Utne (2001:12), “to mend the broken or damaged relationship, rectify wrongs, and restore justice”. Another aim is to ensure the full integration of parties into their societies again and to adopt the mood of co-operation. As aptly put by Brock-Utne (2001), the overall objective of traditional conflict resolution is to avoid accusations and counter-accusations, settle hurt feelings, and reach a compromise with a greater focus on helping improve the future relationship of the parties involved.

The key players in traditional conflicts resolution depend on the level at which it is being handled. Some conflicts can be processed at the family level with family heads or at the community level with the chief and elders. The roles played by the key actors may change from time to time as the situation demands. This is because there is no standard model with indigenous conflicts resolution processes. Thus, the traditional conflicts resolution approach is flexible and dynamic and the whole process and content are influenced by the social context.

Generally, traditional conflict resolution involves the identification of the root cause of the problem and engaging all parties concerned to address the underlying issues. This usually ends with the guilty party(ies) acknowledging and accepting wrongdoing, which potentially leads to reconciliation. Usually, the process ends with either a compensation or just forgiveness (Brock- Utne, 2001; Murthi, 2006). The process of traditional conflict resolution has to do with how indigenous structures and systems bring about actions intended to ensure peace at the individual and community level relationships. In this respect, conflict resolution procedures are generated from general cultural life and daily experiences of living.

Traditional conflicts resolution in Ghana

Traditional conflict resolution in Ghana is a structured political, judicial and arbitration mechanism hence, traditional leaders play a vital role in local and grassroots communities in relation to socio-economic development and the administration of justice in the modern political system and conflicts processing (Oquaye, 2013). This is part of the cultural heritage of the people of Ghana. Traditional leadership plays critical roles in promoting and sustaining social cohesion, peace and order in societies

There are many actors involved in the traditional conflict resolution process. These include family and clan heads, chiefs with their elders and queens. Other actors may be drawn from across all sections of society including clans, youth, women, singing and self-help groups/associations. Also, of significance are the traditional priests, herbalists and soothsayers. This study focused on chiefs and elders. They operate based on consultation, open discussion, consensus building and coalitions which. The composition of the traditional authority also demonstrates the Ghanaian

traditional notion of participatory democracy (Okrah, 2003). The traditional process of conflict resolution in Ghana especially the Nabdam is based on the notion that whatever decision is arrived at should improve the relationship between the parties and that the judgment should be wise and practical (Okrah, 2003).

The setting or venue for traditional resolution of conflicts is very crucial. A neutral ground is often selected for traditional conflict processing event due to the value of conciliation embedded in the traditional approach (Esia-Donkoh, 2012). This informs why cases are often processed at the chief's palace (Best, 2006; Kirby, 2006). When land boundary is the basis for the conflict, then the boundary in contention could be used as the venue. Under such instances, the earth goddess, as well as the ancestors, is invoked as they are regarded as the real owners of land (Best, 2006).

Esia-Donkoh (2012) contends that there are cultural and spiritual connotations to the choice of neutral grounds for the traditional processing of conflicts. It shows that the communal interest of the people is supreme; hence, the interest of the community must be placed above individuals' interest. Also, the choice of neutral grounds indicates there is a dependence on the spirit beings to witness and assist in the resolution process so as to achieve harmony. Thirdly, the choice of some neutral grounds like the palace and shrine symbolizes the support and heritage of the entire community (Esia-Donkoh, 2012). Generally, a traditional conflict resolution process has three stages which include the pre-resolution, resolution, and post resolution (Manuh, 1988; Esia-Donkoh, 2012).

The traditional conflicts resolution process in Ghana involves the use of social, spiritual, and material tools (Awedoba, 2010; Kendie, 2010; Sarpong, 2009). The spiritual tools involve the performance of rituals such as sacrifices, libation, incantations, and prayers supposed to engage the ancestors in the disputing process. The social tools include the use of proverbs, marriage ties, historical experiences, joke relationships etc. Some of the material tools used included the use of local foods, drinks, and fines.

Research Methodology

The descriptive study design of qualitative research paradigm was used for this study. This design was appropriate in presenting accurate picture of the specific details of the Nabdam indigenous conflict resolution mechanism and peace-building. Again, the design was effective in the asking the "how" and "who" questions of the approach (Neuman, 2007). As a result, I was able to present the accurate detailed description of the phenomenon of Nabdam conflict resolution and peace-building.

A sample of thirty (30) persons consisting five (5) chiefs, ten (10) elders, and fifteen (15) disputants who had come before chiefs for settlement of their disputes were involved in the study. These people were considered to be well placed to provide right and relevant responses or answers to my interview questions since the chiefs and elders were the people who manned the application of the traditional approach

to conflicts resolution in the area, and the disputants had personal experiences when it came to employing the approach to resolve conflicts.

The Nabdam District in the Upper East Region was 'handpicked' (O'Leary, 2005) for the study partly because of the widespread use of the indigenous approach to resolve conflicts in the area and also due to the almost non-existing literature on the use of the approach to conflict resolution and peace-building. The sample population of 30 was drawn from five traditional areas within the Nabdam District namely Kongo, Nangodi, Sekoti, Zanlerigu and Peligu. The five chiefs and ten elders were selected through convenience sampling method. I depended on the chiefs and elders to refer me to the 15 people in the community who had used the approach to resolve their disputants. I traced to the houses of these persons and fortunately, all the disputants I approached obliged or accepted to be part of the study.

Semi-structured interview, focused-group discussion, and observation were employed for the collection of data for the study. All the chiefs, five elders, and fifteen disputants were engaged in one-on-one face-to-face interview on the structural and procedural aspects of the approach, role of women in the use of the approach, and the prospects of the approach into the future. The other five elders (one each from a palace) were engaged in a focused group discussion the procedural aspects of the approach, roles of women in the use of the approach, and the prospects of the approach into the future. I also observed three live processing of cases at three chief palaces. The use of these instruments allowed for the triangulation of the results. These allowed for the collaboration or rejection of the data gathered.

Findings and Discussion

The section presents the findings obtained and discussions. It covers the structural and procedural aspects of the approach, the role of women with the approach, and the prospect of the approach into the future in line with the research objectives and questions.

The Structural and Procedural Aspects of the Nabdam Indigenous Conflict Resolution and Peace-building

The first research question was set to elicit information on the structural and procedural aspects of the Nabdam indigenous approach to conflicts resolution and peace-building from the chiefs, elders and the disputants who have had experience of the approach. The structural and procedural aspects of the approach were deemed very important since, in many instances/events, the process is as important as the end result. This is also because many scholars have indicated that African indigenous conflict resolution approaches are well-structured and time-proven social systems (Naude, 2010; Fred-Mensah, 2005; Choudree, 1999). Again, in the formal judiciary system, the substantive aspect is distinguished from the procedural aspect of the law. Mondak (1991) writes that substantive law refers to the body of rules that determine the rights and obligations of individuals and collective bodies while the procedural law is the body of legal rules that govern the process for

determining the rights of parties. To this end, a number of sub-themes were developed to ascertain this.

Initiating a case in the Nabdam chief's palace

This section sought to understand how anyone who needs to have his or her case reported at the palace for settlement goes about it. All the chiefs gave a similar procedure though some had slight differences. The chiefs were asked to take me through how a case is reported at their palaces.

An Elder gave the following response:

A case cannot be reported directly to me the chief, and so, is first reported to an elder. The elder then comes to inform me in private about the request of the person. After the elder reports the case to me, I will ask the elder to come with the complainant to the palace for the case to be reported to the chief officially. When the elder and the complainant appear at the palace, the complainant is given the opportunity to make a report of his or her case with either an amount of money or animal or a combination as a filing fee (Field data, 2019).

Another Divisional Chief also said:

Anyone desiring for his or her case to be processed at the palace has to first report the case to any of my elders. The said elder will determine whether the case merits to be heard in court or not. If the elder decides that the case should not get to the chief, the rest of the other elders are called in to handle it without the involvement of the chief. If the case must get to the chief, the elder makes a formal report to the chief on behalf of the complainant. The chief then asks the elder to come with the complainant to register the case. The complaint registers his or her case at the palace with a filing fee which could be an amount of money or animal(s). It is the complainant who decides on how much or what animal(s) or even a combination to file a case with (Field data, 2019).

A Paramount Chief on his part said:

Cases for processing at the Paramount Chief's level are referred from Divisional Chiefs. Even if an aggrieved person comes to me first, I will refer him or her back to the Divisional chief. So cases that Divisional Chiefs are unable to handle are referred here. The Divisional Chief involved brings the disputants. The Divisional Chief concerned comes with the disputants, greets and indicates whether he was unable to resolve the case satisfactorily or he considered the case beyond his capacity. The filing fee at the Divisional Chief's level is brought to register the case here (Field data, 2019).

It can be seen that, with the Nabdam indigenous conflicts resolution process, no one goes directly to the chief to report a case for processing. According to a Divisional Chief in an interview session, this was put in place by the forefathers to show respect to the chief. The good thing is that the person desiring his or her case to be heard has a number of elders at his or his convenience to approach and start the process of reporting the case. I support the practice of allowing cases to be reported to any of the elders because that will enhance quick access to reporting, hearing and resolution of cases since the elders stay in various part of the communities. I also contend that the thinking behind not allowing persons to report their cases directly to the chief is very appropriate as that practically shows respect to the authority of

the chief and hence, places him in the capacity to deal with issues in a manner that will ensure peace and harmony.

Cases get to the Paramount Chief's palace for resolution through a referral from a Divisional Chief. A Paramount Chief insisted that all cases for consideration at the Paramount Chief's place must be brought from the palace of a Divisional Chief, else, he refers the disputants back to the Divisional Chief. The insistence that cases to the Paramount Chief's palace must go through Divisional Chiefs is important in ensuring structures of authority are followed and that the Divisional Chiefs are not undermined.

Generally, cases are reported to any of the elders in the palace to be forwarded to the chief. Sometimes, the elder can decide whether the case should get to the chief or not. On a decision not to let a case get to the chief, the elders by themselves can settle the case. This is similar to the Akans' as noted by Manuh (1988) that the elder who receives the case from the complainant determines the merit of the case to be heard by the chief. The complainant determines the filing fee which has traditionally been animal(s) but in modern times can be money. There is, therefore, no imposition and this takes away financial inaccessibility to justice from the process. This also makes people to be so certain or sure that they have cases before they appear at the chief's palace to make reports since losers forfeit whatever they used to file their case.

The structured nature of initiating a case at the palace of a chief in the Nabdam area serves to limit the numbers of cases to be reported there. This was made clear at a Focused-Group Discussion with elders where they explained that the structured nature of reporting a case at the palace was meant to make people intending to initiate a case get to meet and interact with respected persons whose words of advice and actions can provide comfort and reduce if not take away the pains in them and subsequently reduce the possibility of going through the process.

The process of initiating a case in the traditional courts in the Nabdam area is similar to the account by Manuh (1988) of the Akan. The slight difference is the elders having the power not to admit cases they did not consider good enough to reach the chief in the case of the Akan. With the Nabdam, any case considered not good enough to be heard by the chief is handled by the elders but not refused total admission.

Hearing a case in the chief's palace in the Nabdam area

Next was on how hearing of cases was conducted after the cases were duly reported. The process through which the case is heard is very important to the acceptance of the outcome by the disputants. This is especially crucial with the Nabdam indigenous approach since its overarching focus is to maintain relationships and foster social harmony. The responses from all the chiefs to this all-important aspect of the process depicted a similar pattern. For example, a Divisional Chief explained how a hearing on cases was done in his palace as follows:

On the day of the hearing, when the chief with his elders is seated, each of the disputants takes turns to greet the chief and announce their presence with kola as kola is the traditionally required item to greet a chief in the Nabdam area. After the

greeting, everyone is reminded of the presence of the gods and ancestors of the land to witness and take part in the process. By this, everyone is called to be honest and truthful. Therefore, people often speak the truth for fear of being dealt with by the gods and ancestors if they told lies. Everybody fears the spirits. After the chief has reminded every one of the presence of the gods and ancestors, the elder who received the case and reported to the chief is asked to call the case for consideration. When he is through calling the case, the complainant is usually called upon first to take a seat on the floor and present his or her complaint. He or she has all the time required to give an adequate presentation of the case and as he or she is making the presentation, no one interrupts him or her; everyone listens attentively. If he or she has evidence to support his or her case, he or she is expected to use them during the presentation in a manner that will help make his or her side of the story better. After the presentation by the complainant, the defendant takes his or her turn to sit on the floor and present his or her side of the case. Similarly, no one interrupts and the defendant also has all the time required to adequately present his or her case. If the defendant also has evidence, he or she is expected to present them during his or her presentation in a manner that will help him or her (Field data, 2019).

A Disputant on his part narrated how hearings are conducted as follows:

On the date of hearing, the disputants with or without people accompanying them appear. After normal greeting exchanges, we get down to the case. The complainant is first given the opportunity to state his or her case. He is free to express himself or herself in the manner he or she feels comfortable in. As the complainant makes a presentation, all persons are to listen calmly. When the complainant is done, the defendant is given the floor to present his or her side of the case as everyone listens (Field data, 2019).

The explanations given above show the indigenous approach has a pattern it follows in hearing cases. My observations of three live disputes processing in three palaces corroborate the descriptions of how cases are heard with the Nabdam approach as presented by the chiefs captured above. My observation saw the elder in charge of the palace “kpaana” would always call the traditional court to order and ask the elder who led the complainant to report the case to call the case for hearing. The approach satisfies the law of natural justice which requires every person accused be given a fair hearing before judgment is passed. This finding makes the Nabdam traditional conflicts resolution approach a potential means to ensuring peacebuilding. The manner in which cases are heard with the Nabdam approach to conflicts resolution is akin to the accounts of the Akan’s given by Manuh (1988) and Esia-Donkoh (2012); and Ewe’s by Togbe Satsi III (2017).

Concluding on a case in a Nabdam traditional court

When the panel of chiefs and elders of the traditional court sit and take the disputants through the process of hearing the case, allowing for cross-examinations and appearance of witnesses, the next thing as expected is that the case is brought to a close. One important thing with the Nabdam traditional conflicts resolution process is that most of the time, the disputants usually get to concede fault when they are taken through the process. The focus of the approach is conciliation; hence, the approach usually engages the disputant to get a result that will foster cordial relationship among disputants after the process. Nonetheless, there are instances where none of the disputants accepts fault after they have been taken through the

process. When that happens, the elders share their just and honest opinions to reach conclusions on cases. One Divisional Chief indicated how cases are concluded as follows:

At the end of the presentations by the complainant and defendant, cross-examination, presentations by witness(es), questions by the elders and chief, the disputants always get to know who is right and who is wrong. The disputants would usually ask for an excuse to go and meet with the people who accompanied them to the palace and take decisions. Upon return, one of the parties is expected to concede and it usually does happen. In the event that none of the disputants accepts to be at fault, the elders' views (without the chief) are taken in private and the decision announced by the linguist. The chief is not part of taking the final decision so as to isolate him from being seen as bias, especially by the losing party and associates. This way the chief remains neutral. In few instances, however, the opinion of the chief is sort but in a tactical manner (Field data, 2019).

A Paramount Chief in a similar version espoused the following:

At the end of the presentations and questioning, the disputing parties with their respective family members and friends move out for some time to confer and take decisions on what has transpired. When they return, the accused is expected to accept guilt or eject the case made against him or her. If the accused accepts fault, that becomes the end of the case but if he or she does not accept fault, the complainant is required to say whether after what has been said, he or she still thinks he or she has been wronged. If neither the defendant nor the complainant concedes fault, the elders move into private to express their views on the case and a decision is taken. In some instances when the disputants do not concede fault, the case is adjourned to another date for them to sleep over it, think and reflect on it, and also seek wisdom from the gods and ancestors so as to be able to deliver just judgment (Field data, 2019).

From the above, it can be seen that the process is opened and plain and often produces fair results as disputants often get to understand the aspects of their cases better and proceed to conclude their cases by themselves. This certainly ensures harmony and cordial relationship among disputants after the settlement process. By this, the process can be described as mediation where the chiefs and elders act as neutral third parties to assist the disputants to resolve their disputes.

The practice of disputants conceding after the hearing indicates that the process is well structured to bring out the truth. This is a positive thing about the Nabdam indigenous approach to conflicts resolution. This also makes the Nabdam indigenous approach unique as I have not read or heard about a similar thing from anywhere. The Nabdam indigenous approach is different from the accounts of Manuh (1986) and Esia-Donkor (2013) who indicate that among the Akan of Ghana, it is the elders who take the decision of who is wrong and who is right; and Togbe Satsi III (2017) who indicates, it is the chief and elders who take the decision among the Ewe.

Sanctions with the Nabdam indigenous conflict resolution approach

Sanctions with traditional approaches are not meant to punish since the focus of these approaches is to maintain a harmonious relationship between parties. Sanctions are therefore meant to appease victims. The principal sanction to the party at fault with the Nabdam indigenous approach to conflicts resolution is the

forfeiture of the filing fee. Additional charges in the forms of a fine of money or animal(s) can be imposed on the guilty party depending on the gravity of the offence. One Divisional Chief offered the following response to the question on the forms of sanctions delivered by chiefs and elders with the Nabdam indigenous approach:

I don't know if we should call it sanction. What happens is that the guilty person forfeits his or her filing fee which is either money or animal(s) or both, while the winner takes his or her's back. In some cases, however, the chief can issue additional sanctions such as a fine of money, fowl, goat, cow, or a combination. This will only happen if the magnitude of the case is grave. The sanction is to serve as deterrence to the guilty person and other people so that they would relate well with others in society. Where an additional charge is given in addition to the filing fee, the loser can in private go to the chief to negotiate for reduction. No torturous and humiliating actions such as beating are given. As a chief, I am a father to everyone and must care for all. If I allow for such things, others will certainly abuse it which can lead to harm or death and I will be held responsible. Therefore, our sanctions end with the filing fee, fine of money, animal(s) or a combination (Field data, 2019).

An elder corroborated the view expressed by the Divisional Chief as follows:

When a case is brought here and a determination of who is at fault is made, the guilty party forfeits his or her filing fee. This is to deter them and other people from misbehaving in the future and also to comfort the victor. There may also be a fine of money depending on the nature of the case (Field data, 2019).

The sanctions with the Nabdam indigenous approach to conflicts resolution serve to check on people deciding to report cases to the traditional courts for processing. As indicated earlier, filing a case comes with a filing fee in the forms of animal(s), money or both and if losing a case would result in the forfeiture of these items you have used to file, people will critically analyse issues before reporting them at the palace. One important thing about the sanctions with the Nabdam indigenous approach is the winner does not take any part of the loser's forfeited things away. It is used to refresh the panel who sat on the case, and for the royal service. The sanction system employed by the Nabdam indigenous approach promotes peace-building.

The role of women in the Nabdam indigenous conflict resolution and peace-building

The next parts examined the role of main actors with the Nabdam indigenous conflict resolution with a view to understanding the role of women in the application of the approach.

Major actors in Nabdam traditional conflicts resolution

Generally, conflict resolution is a process involving the identification of the root cause of the problem and bringing all parties involved to address the underlying issues. This requires the people to make this happen to be technically proficient and generally accepted, hence, the actors in the conflicts resolution process is very significant. The chiefs and elders indicated that the actors are those along the traditional authority structure in the area. The Nabdam traditional authority

structure stretches from the family head, through clan head, sub-divisional chief, and divisional chief to the paramount chief.

It was made clear that women have official role in the application of the indigenous mechanism in the area. Only chiefs with their elders (all male) are the main persons involved in resolving conflicts using the indigenous approach. They pointed out that all the chiefs have some regular elders with whom they worked. These elders as mentioned by a Divisional Chief included: “Kanbongnaab” (responsible for external relations), “Kpanna” (in charge of the palace), “Bihenaab” (in charge of the youth), “Aduu” (linguist), and “Yidaan” (usually the eldest son of the chief). The following captures his view:

I don't sit on cases alone, no way!!! I have elders – kpanna, kanbongnaab, aduu, bihenaab, and yidaan that I usually invite to sit in court to handle cases. These are my able men with great wisdom who make things happen here with most of the people if not all that come here leave satisfied (Field data, 2019).

This attribute of chiefs and elders serving as major actors in indigenous conflicts resolution in the Nabdam area is similar to the practice in other parts of Ghana and Africa as contains in works on African traditional conflicts resolution (eg. Marfo, (2014); Awedoba (2010); Kendie and Guri (2006); Zartma (2005); Okrah (2003); and Lanek (1999). Again, it corroborates Nwosile (2005) when he wrote that the actors in African traditional conflicts resolution are elders, clan chiefs, prominent leaders, acceptable and respected persons (eg. great hunters).

However, unlike the Akan where all levels of traditional authority have corresponding female actors (Manuh, 1988; Esia-Donkoh, 2012), and the Ewe of Volta Region (Togbe Satsi III, 2017), the Nabdam traditional structure has no such role for a female. When the chiefs were asked about the role of women in traditional conflicts resolution in the area, all the five chiefs responded that women have no role to play in the process. The structure of the Nabdam traditional authority without women is akin to the traditional authority of the Ga in the Greater Accra Region. The chiefs, however, indicated that in recent times, following calls from the National House of Chiefs, they are trying to work with women leaders in the communities known as “mangaazien”. The “mangaazien” are not queen; they are just women who lead in the organization of other women in the communities due to their own leadership attributes, hence, they hold no traditional authority. Notwithstanding, one Divisional Chief had this to say about the role and involvement of women in traditional conflicts resolution process in the area:

Even though women traditionally have no place in traditional authority and in resolving conflicts, I have been working with the “magaazien” especially on cases that involve women. I recognise that women are the source of nature, full of wisdom and ideas. I equally recognise that even we men came from women and so women are very important. I, therefore, have been inviting the “mangaazie” to come and sit in to process some cases. I also sometimes, refer women to her to assist them to resolve their cases after which she reports back to me (Field data, 2019).

The absence of an official role for women in the conflicts resolution process in the Nabdam area may be attributed to the patriarchal nature of the society. Patriarchy, in its wider definition, means the manifestation and institutionalization of male dominance over women and children in the family and the extension of male dominance over women in society in general (Jagger & Rosenberg, 1984). It implies that men hold power in all the important institutions of society” and that “women are deprived of access to such power Walby (1990:104). Summarily, the main actors in the Nabdam disputes resolution include the chiefs and their councils of elders. This finding of males as the major actors with the Nabdam traditional conflict resolution process corroborates the view of Elechi (2004) when he wrote that adult males dominate the process of conflict resolution in Africa.

Prospects of the Nabdam indigenous conflicts resolution approach

This part examined the prospects of the Nabdam indigenous conflict resolution model, especially with religious proliferation and modernity in the area. Results from the interview sessions with the chiefs, elders and disputants pointed to a great prospect for the model into the future notwithstanding the increasing rates of modernity and religious proliferation. The chiefs, elders and disputants pointed out similar points to explain their position. These points included cost, proximity, accessibility, legal provision, speedy processing of cases, trust for the model and the influence of culture and tradition on the model. A Divisional Chief expressed strong conviction on the prospect of the Nabdam traditional model in the following words:

There is a great prospect for the Nabdam traditional conflicts resolution approach using the chiefs and elders because it is based on the culture and tradition of our people and no matter what, we will continue to have our culture and tradition. People’s culture and tradition cannot just be done away like that. Also, chiefs will continue to be leaders of various communities in our area and as leaders, they will be expected to perform certain functions as leaders in all societies do, and one such important function will be to assist their followers to resolve their disputes in an amicable manner and in a way so as to foster unity. The approach also has prospect because it costs less to use it to process conflicts especially in our part of the country where many of our people are poor. Again, the traditional approach is accessible to our people. Let me also add that the approach has prospects because it is backed by law (the 1992 Republican Constitution and the Chieftaincy Act) and we work with the Local Government Ministry (Field data, 2019).

A Paramount Chief on his part indicated the following:

Our traditional approach to conflict resolution may be challenged by modernity and religious proliferations but it has prospects into the future due to some advantages it has. In the first place, chiefs are considered to be transparent in our society and as a result, the approach enjoys trust from the people. What is therefore important is that the chiefs must endeavor to live to the confidence put on them by the people as being transparent. Also, our approach to conflict resolution is relatively cheap. When employing our approach, there is no cost in hiring the services of lawyers and in disputants transporting themselves and witnesses since they live with their chiefs in their communities. Finally, the approach has prospect because it takes a relatively short time to process disputes and the sanctions given under the approach are a

minimal and foster relationship which you will not have with the modern court's system in our country (Field data, 2019).

A disputant corroborated the views as expressed chiefs above as he was positive on the prospects of the Nabdam indigenous approach to conflict resolution into the future in the face of modernity and religious proliferation. In his view:

As long as we continue to recognize tradition, and continue to have chiefs enskinned with the authority to resolve disputes, people will continue to employ the approach. Also, the more we continue to hear the reports of rops in the form of bribery and misuse of power leading to miscarriage of justice from the modern courts system, people will develop even more trust and confidence with the traditional approach which is believed to be transparent and fair because the gods and ancestors of the area are always part of the process. The practical reality of police and courts referring cases to chiefs to process gives credibility to the traditional approach and as a result, it will still be a major option for disputes processing in the Nabdam area. More so, the relatively cheap cost of processing cases with the traditional approach and the advantage of proximity for the people will continue to largely influence the people to depend on the approach (Field data, 2019).

The views from the chiefs, elders, and disputants give a significant indication that the Nabdam indigenous approach to conflict resolution will still be very much patronized. The views are rooted in practical factors. In the first place, administration of justice under the Nabdam indigenous method is quicker and cheaper than in the modern legal system where cases can take a very long time to settle. The cost of hiring a legal practitioner could also be very expensive for some people. Thus, the traditional method is easier for many people to use. A disputant from this viewpoint indicated that *"Besides the fact that they are easily accessible, traditional courts are cheap in terms of transport costs and the court's levy only minimal fees which may be payable in kind. Further, since legal practitioners are not permitted in these courts, justice is affordable"*.

It can also be noted from the responses from the chiefs, elders and disputants that the prospect of the traditional approach is in its emphasis on restitution and reconciliation by the approach. Efforts are usually made to reach an agreement that is acceptable to both the complainant and the accused. This may explain the reluctance of some members of contemporary society to go to court. The finding on the resiliency of Nabdam traditional approach to conflict resolution resonates with Myers and Shinn (2010) when they indicated that *"the Western Justice System is individualistic, retributive and emphasizes a winner-loser paradigm in resolution of disputes whereas the African justice systems focus on the restoration of social harmony and social bonds between disputants"*.

Another important factor noted for the prospects of the traditional approach is the reservations some members of the society have about the modern court's system to conflict resolution. This factor has led to the belief that 'legal justice' may be different from 'social justice'. Under the modern legal system, a thief may be discharged and acquitted on technical grounds, even if he was caught in the act. While this may seem reasonable from the legal point of view, it may be difficult for the victim to

accept the reason for this. For these reasons, some people in the Nabdam area will not bother to go to the modern court, believing that they may not get 'justice'.

On accessibility, it was indicated that traditional courts exist in almost every part of the area under a traditional leader which means that virtually every village has a court within reach of most inhabitants. People do not have to travel long distances to magistrate's courts at district headquarters. The courts are also accessible in terms of social distance. Since the presiding chief and his elders who constitute the court are not very different in terms of social status, wealth or education, disputants do not feel as intimidated by the chief's court as they would in a western-type court.

The point of familiarity with the law was another factor considered by the respondents in deciding the prospect of the Nabdam traditional approach to conflicts resolution. They contended that the Nabdam traditional court applies the customary law which consists of rules and customs of the community. One elder, therefore, concluded that:

Ordinary people understand it and relate to it much more than the largely imported common law or the statutory law applied in the regular courts. Although the Nabdam society has been changing over the decades, the people still identify with their customary law rather than other laws which baffle the learned and the ordinary people alike. The absence of lawyers in these courts has ensured that principles of customary law and practice remain structurally and conceptually simple, which in turn encourages popular participation in the exposition of the law (Field data, 2019).

This explains what Bowd (2009: 2), meant when he said "traditional courts are often favoured in rural areas because of; their relatively informal nature, their use of local languages and vernacular, and their close proximity to users". The chiefs, elders, and disputants also referred to the simplicity and informality of the traditional approach on its prospects into the future. They maintained that the Nabdam traditional approach to conflicts resolution is simple, informal, and flexible. The procedure in Nabdam traditional courts is simple, flexible and expeditious. This gives the approach a major advantage over the western-style courts which sometimes get bogged down in technicalities. The informality makes the Nabdam traditional courts user-friendly.

One thing that makes the approach familiar is the language used during proceedings. The fact that the language of the court is invariably the local language of the disputants, with no risk of distortion through interpreting, makes these courts attractive to their users and gives greater satisfaction to the participants in the process as compared to regular courts where the language used is not understood by the majority. The finding to this research question which indicates the approach to conflict resolution has prospect into the future again shows the desire of the people to maintain the natural attribute of peace and order.

Conclusion

The Nabdam indigenous approach to conflict resolution and peacebuilding has served to a large extent manage conflicts in the area. Judging from the findings discussed above, it can be conveniently concluded that the Nabdam indigenous

approach to conflict resolution and peacebuilding is a well-structured, flexible, and efficient mechanism that employs restorative and transformative principles in conflict resolution. The approach is process-oriented, rather than rule-based. Its emphasis is on the processes of achieving peaceful resolutions of disputes rather than on adherence to rules as the basis of determining disputes. The approach can be categorized into four stages namely; the initiation, processing, concluding, and consolidating stages. The approach is patronized largely for the resolution of conflict which accounts for the relatively peaceful nature of the Nabdam area.

The indigenous approach to conflict resolution reveals the patriarchy nature of the Nabdam area. Women are identified with the capacity to resolve conflict and build peace in the Nabdam area and have been used informally in the processing of conflicts especially those conflicts involving women. Notwithstanding, women have been left out in the formal traditional authority structure, hence, no formal role in conflict resolution and peace-building in the area. The absence of women in formal capacities in resolving conflict and building peace tend to reduce women to people who are unable to be creative to deal with issues and derive successful outcomes. This does not only discriminate against women in the area, but deprives people especially women of fantastic feminine perspective to conflict resolution and peace-building in the area.

Finally, the people of Nabdam are conservative especially to their traditions, customs, and culture. Notwithstanding the pervasive influence of modern religion and modernization, the people in the Nabdam area are still very much held to their custom-based approach to conflict resolution and peace-building. Together with the many advantages with the indigenous approach to conflict resolution and peace-building, this conservative nature of the people, makes them to see prospects with the indigenous approach into the future regardless massive religious proliferation and modernization in the area.

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Factors Affecting the Adoption of Smart Technologies for Traceability of Raw Materials in the Retail Industry

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Abstract

The effect of contaminated raw materials within food products has great effects on both the organizations who produce them and the customers who consume them. Some businesses have nearly gone bankrupt due to contamination issues, and there have been fatal cases of consumers who digest these contaminated products. The study objective is to explore the factors affecting the adoption of smart technologies for traceability of raw materials in the retail industry. The study used a systematic literature review to explore factors affecting the adoption of smart technologies in the traceability of raw materials in the retail industry. The TOE framework has adopted the lens to understand the factors affecting the adoption of smart technologies. The study results indicate technological, and environmental factors affect the adoption of emerging technologies in the traceability of raw materials in the retail industry. The study contributes to the body of knowledge on factors that affect the adoption of emerging technologies for raw material traceability in the retail industry.

Keywords: emergent technologies, retail industry, traceability, technological, organizational, environmental factors

Introduction

The nature of the problem arises from customer complaints about a certain product, which was not up to the expected quality standard. The investigation would then commence finding the root of the problem, which is normally within the raw materials of the product. Following this would include the action of traceability to trace back and identify the cause of the problem. In the field of raw materials, process industries make use of production processes that change material properties to create enhanced raw materials for subsequent use in many different areas in a supply chain (Souali, Rahmaoui, & Ouzzif, 2017). Process firms make use of such raw materials to manufacture or produce incomplete products via production processes, where such materials are then transformed into a continuous flow in batches (Florén et al., 2013).

Akindipe, (2014) state that raw materials play an extremely important role in efficient and effective operation in a manufacturing organization. The availability of such raw materials at the right quality and the right quantity will, to a reasonable extent, determine the availability, quality, and quantity of the final product produced. The correct management of these resources can prove crucial to the overall performance of manufacturing firms. Raw materials influence many businesses orientated events; such include general price index, activity level, and ultimately the profit generated by companies. According to Souali, Rahmaoui, and Ouzzif, (2017) "traceability can be defined as the ability to keep a detailed history of all activities and changes that a particular object can undergo throughout its entire lifecycle, taking into account the different relationships that may appear. This particular object can be a material, a product, a model, or even a class in a software development platform. The objective of the study was to explore factors that affect the adoption of emergent technologies for traceability of raw materials in the retail industry.

Literature Review

The new technology advancements and developments are many reasons for the shift from the third to the fourth industrial revolution (Xu, David & Kim, 2018). They further state that the 4th industrial revolution is taking off from where the 3rd one has left us. The main reason why this new revolution is seen as a distinct revolution of its own is due to the difference in velocity, scope, and impact compared to the 3rd revolution. Xu, David, and Kim (2018) note that the consumers are the ones to benefit most from this revolution; it has the possible effects of rising income levels of entrepreneurs as well as improving the quality of life for general society.

The new revolutionary technologies of the fourth industrial revolution include the fusion of multiple technologies available; making them work together as complementary products. Such technologies would include more advanced 3D printing; the internet of things (IoT); artificial intelligence; autonomous vehicles and many more. With the aid of such technologies working harmoniously together, creating, storing, and distributing information; the 4th industrial revolution would be achieved and (Xu, David & Kim, 2018). They described the Fourth industrial revolution as a combination of these various technologies which blur the lines between physical, digital, and biological spheres. Technologies such as Radio frequency identification (RFID) and barcodes are used for raw material traceability by organizations.

White et al., (2007) highlighted a few issues related to the use of RFID. He stated that there are additional expected costs and issues to be experienced by organizations when implementing RFID in their supply chain management processes. These issues would be consumer privacy concerns, data storing issues, and globally agreed-upon operating systems. Extra costs would include hardware and software installation and maintenance costs as well as training costs for employees. Barcodes on the other hand are rather out-dated in today's technological world, and White et al., (2007) mentioned a few basic issues surrounding them. Barcodes require line of sight for scans, they can only be scanned one item at a time, if barcodes are dirty or smudged then it cannot be

identified and manual tracking has to be performed therefore it is vulnerable to human error.

RFID and barcodes are soon to be replaced or merged by the new fourth industrial revolution breakthrough technologies for raw material traceability, in supply-chain management. Waughray and de Cleene, (2019) state that technologies such as the internet of things (IOT), blockchain, food sensing technologies. Big data is also a factor that will have to be considered. The IoT will bring a new dynamic between organizations allowing for a new co-operative function between food producers, transportation, and retail companies allowing them to work together. This co-operative function would ensure efficient delivery and food safety. This allows companies involved in the supply chain to have real-time visibility of products and enabled automation of intelligent actions required to ensure optimal food quality, punctual delivery of products, and that these products are prepared in ideal conditions (Waughray & de Cleene, 2019).

Raw Material Traceability

With definitions already being dealt with in the introduction; traceability can be seen as a risk management measure that emphasizes aspects ranging from food safety, food defense, food frauds to the right of the customers need to know (Chhikara et al., 2018). Chhikara et al., (2018) note that effective traceability can yield great benefits for organizations. Potential risks and costs concerning foodborne diseases could be reduced as well as the elimination of food safety hazards. Kraisintu, and Zhange (2011) state that current technologies being implemented in traceability systems include RFID, alphanumerical codes, bar codes, GIS, and GPS.

Chhikara et al., (2018) state that there are also quick control measurements in place to deal with cases that may involve the deliberate contamination in the contents of food products. These control measurements include trace-forward and trace-back (reverse supply chain management). Karamchandani and Srivastava, (2017) described reverse supply chain management as effectively implementing the sequence of events involved in recovering products from a phase of the forward supply chain either for disposal or recovering value. Reverse supply chain management consists of a series of steps that need to be followed to effectively recover products (Karamchandani & Srivastava, 2017)

South African Context

South Africa is renowned for the exports of its fruits and vegetables, especially in grapes for the exporting of wines. Mugadza, (2014) state that the fresh fruits and vegetables were partially traceable in South Africa. He further states that consumers within South Africa prefer to purchase food products that retailers can trace-back to the place of birth (farm); regardless of price. The effect of not being able to trace back can be devastating at times for companies. The Tiger Brand suffered a huge cost with regards to the listeriosis outbreak. The fact that they couldn't trace-back and find the point of contamination, all products had to be disposed of, resulting in financial losses, reputational damage, and lack of customer trust (Khumalo, 2018; Johnston, 2019).

Related Studies

In critically analyzing related studies, a few common issues arose concerning the traceability of raw materials. Bulk and silo storage was a common factor that arose; this is concerning raw materials where a product tag is impossible to attach. An example of such products would include raw materials such as rice or wheat. In addition to these issues such as supplier identification and loss of raw materials during manufacturing also appear as common issues. Lastly, issues such as lot identification, lot-sequence-mixing, and lot-end-mixing appear in the literature. Lot-sequence-mixing relates to processes that entail several buffers or the mixing of raw materials. Lot-end-mixing relates to material flows that differ and process steps that include reflux flows (Zhang & Bhatt, 2014)

Theoretical Framework

The study adopted the TOE framework to explore the factors affecting the adoption of emerging technologies in the traceability of raw materials in the retail industry. Tornastzky and Fleischer (1990) developed the framework to understand factors affecting technology adoption in organizations. Baker, (2011) adds that the TOE framework is an organization-level theory that explains the three TOE (technological, organizational, and environmental) factors that affect technology adoption in organizations.

Technological Factors

Baker, (2011) states that the technological context consists of all technologies already being implemented currently within organizations and as well as those technologies not being implemented but are available to purchase within the marketplace. He further stated that the existing technologies being applied in processes are of the utmost importance when it comes to the adoption of new technologies as a broad limit on the scope and pace of technological change is applied. Kinuthia, (2015) further states that the technological context refers to the decision strategy of technological adoption concerning the current technologies available at the company and the compatibility of existing and new technologies. The six technological variables include relative advantage, perceived benefits, cost, compatibility, organizational capabilities, and technological resources available.

Organizational Factors

Baker, (2011) states that the organizational context refers to the characteristics of a business. The characteristics of the business play a big role in the manner in which organizations adopt technologies. Arnold, Veile, & Voigt, (2018) state that the size of the firm influences how organizations adapt to innovations. Firm size is one of the biggest organizational factors which affect the rate of adoption within firms. The bigger the firm the more people that need to be trained and the more complex things get. It is stated that larger companies usually have the required resources for adoption but in turn, also have a larger risk factor. Top management support is of the utmost importance for companies when adopting innovations. Mwambia (2015) states that organizational readiness relates to how well-prepared organizations are in adopting new technologies. Factors existing within organizational readiness would include

staff skill and knowledge, resources available, and tension for change. Alam, Ali, & Jani (2011) further state that the readiness of an organization resembles the company's technological capabilities.

Environmental Factors

Baker, (2011) states that the environmental context speaks about how the market industry is structured, technology service providers, and the governing environment. The author further states that competition sometimes triggers the need for adoption within organizations to keep up with their competitors. Laws and regulations also play a big role in the manner in how organizations adopt emerging technologies. When discussing the environmental factors of IT adoption within businesses, competition is seen as one of the most important predicting factors (Arnold, Veile, & Voigt, 2018). Kinuthia and Chung, (2017) add that competitive pressure influence the adoption of emerging technologies. They defined competitive pressure as the amount of pressure an organization receives from its competitors within the industry they operate. Environmental uncertainty relates to the various uncertainties happening within the environment a business operates. Such uncertainties would include unstable exchange rates and share prices and changes in customer demand. Nothing within the environment is stable as the world is ever-changing (Arnold, Veile, & Voigt, 2018).

Research Methodology

The research design type applied throughout this research article was a systematic literature review. This allowed for the identification of research questions and objectives. Jokonya (2015) stated that systematic literature reviews look to address relevant topics by identifying, critically evaluating, and integrating the findings. The author further states that systematic literature reviews are characterized by being objective, systematic, transparent, and replicable. Jokonya (2015) also states that there are five key stages when doing a systematic review; these are namely scoping, planning, identification, screening, and eligibility.

The research type was quantitatively based on content analysis of existing secondary data from the literature. Content analysis forms part of many procedures for the systematic, replicable analysis of data (Rose, Canhoto, and Canhoto, 2015). It involves the classification of data via the application of a structured. Content analysis provides a structured manner of analyzing data that are generally unstructured and open-ended (Jokonya, 2015).

Unit of analysis

Babbie and Mouton, (2005) state that the unit of analysis, also known as the unit of observation, can be defined as the "what" of your study. Therefore, what object phenomenon, entity, process, or event. The unit of analysis for the study was retail organizations. Kumar, (2018) defined organizations as groups, which are formally structured which include corporations, religious groups, colleges, and so forth. The study explored the factors affecting organizations from adopting emerging technologies.

Instrument Development

The study adopted the TOE framework to achieve the research objectives and answer the research questions. The study explored technological, organizational, and environmental factors variables (Table 1.) affecting the adoption of emergent technologies from identified suitable articles published from 2013-2019. The study used a literature matrix based on an excel spreadsheet to code the existence of construct variables listed in Table 1.

Table 1. TOE Variables

Technological	Organizational	Environmental
Relative advantage	Firm size	Competition
Perceived benefits	Management support	Environmental uncertainty
Cost	Organizational readiness	Government
Compatibility	Org. performance	Industry Sector
Org. capabilities	Organization structure	Supply chain partners
Resources available	Supply chain strategy	

Data sources and sampling

Convenience sampling was used to select suitable articles for the study based on the predefined criteria. Etikan, (2016) defined convenience sampling as non-random sampling were those included in the target population, who meet required criteria at a given time or the readiness to participate. Keywords were used to search for relevant literature, using keywords such as raw material traceability, and digital supply chain management, and fourth industrial revolution among others. The selected published articles from existing literature were published from 2013-2019. Data collection involved the use of search engines such as Google, Google Scholar, Science Direct, and Research gate to select suitable articles.

Research Method

The study adopted quantitative content analysis to explore factors affecting to explore the factors affecting the adoption of smart technologies for traceability of raw materials in the retail industry. The quantitative content analysis helps to transform qualitative data (text) to be analyzed quantitatively (Jokonya, 2015). Quantitative content analysis has eight key steps that researchers follow, which are developing the research question, conceptualization, sampling and unitizing, coding scheme development, data collection, coding, reliability test and analysis, and findings and conclusions.

Data analysis

Data collected from 62 published articles were categorized based on the TOE framework constructs (technological, organizational, and environmental) before coded and captured in an excel spreadsheet. After the data transformed through coding is was analyzed using a statistical package to produce descriptive statistics which are part of the study results

Study Results

This sub-section presents the results of analyzed data from published articles on smart technology adoption for traceability of raw materials in the retail industry published from 2013 – 2019. The results presented in this section include the demographic data (year of publication, the region of publication, and the research method used for the study) and the TOE theoretical framework construct (technological, organizational, and environmental factors) variables.

Demographic Data

The sub-section below presents the frequencies of the demographic data (year, region, and research method) results on smart technology adoption for traceability of raw materials in the retail industry published from 2013 - 2019.

Articles by year

This sub-section presents the frequencies of the publication year on smart technology adoption for traceability of raw materials in the retail industry published from 2013 - 2019. The show that 2013 had (8%), 2014 (8%), 2015 (11%), 2016 (15%), 2017 (13%), 2018 (24%) and 2019 (21%) of the 62 published articles. The study results indicate there was a general increase on articles related to smart technology adoption for traceability of raw materials in the retail industry from 2013 – 2019.

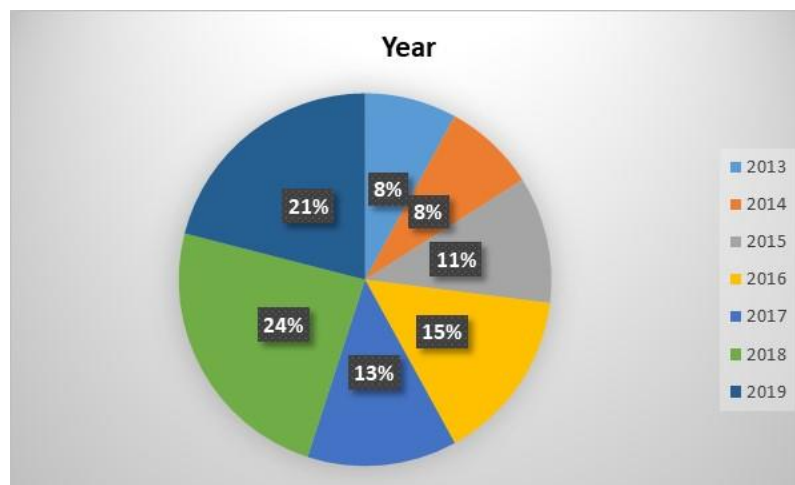


Figure 1: Publication year

Articles by Region

This sub-section presents the frequencies of the publication by region on smart technology adoption for traceability of raw materials in the retail industry published from 2013 - 2019. The show that Africa had (21%), Asia (39%), Europe (21%), and America (19%) of the published articles. The study results indicate Asia had the highest published articles related to smart technology adoption for traceability of raw materials in the retail industry from 2013-2019 and America the least number of articles.

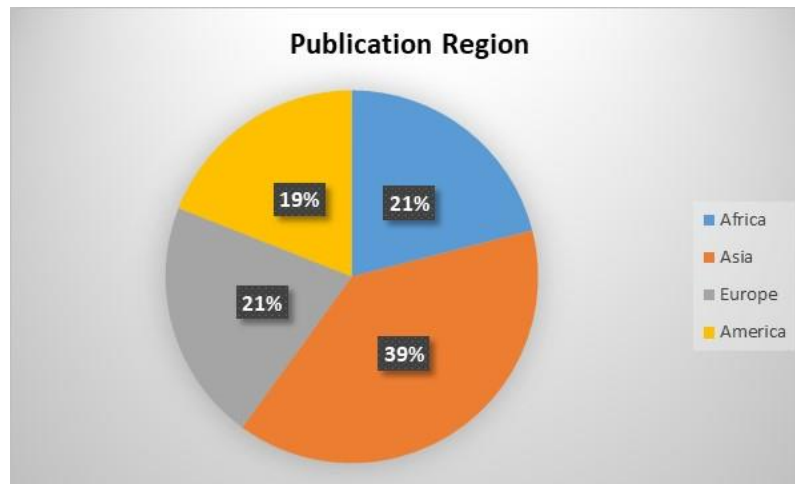


Figure 2: Publication region

Articles by Method

This sub-section presents the frequencies of research methods used in articles published on smart technology adoption for traceability of raw materials in the retail industry published from 2013 - 2019. The show that quantitative had (42%), qualitative (35%), and mixed-method (23%) of the published articles. The study results indicate quantitative was the most used research method on published articles related to smart technology adoption for traceability of raw materials in the retail industry from 2013-2019 and mixed-method was the least used research method.

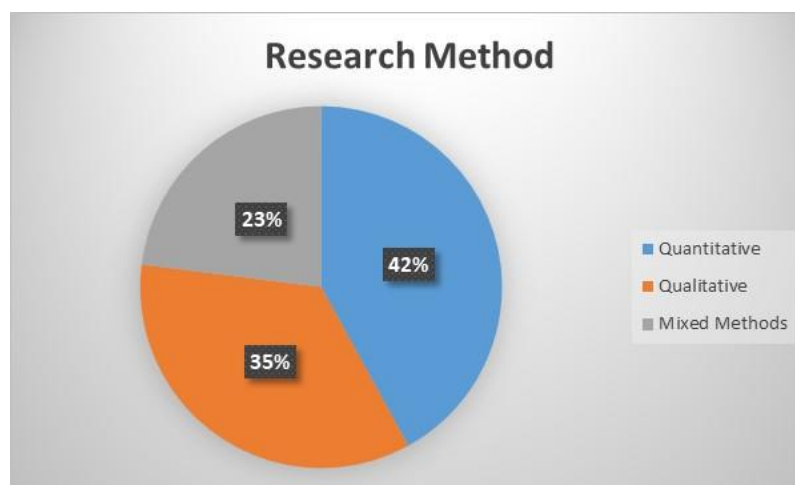


Figure 3: Research Method

TOE Framework Results

The sub-sections below presents results on the TOE framework constructs factors variables that affect the adoption of smart technology for traceability of raw materials in the retail industry published from 2013 - 2019.

Technological Factors

This sub-section presents the frequencies of technological factors variables that affect the adoption of smart technology for traceability of raw materials in the retail industry published from 2013 - 2019. They show that relative advantage (18%), perceived

benefits (47%), cost (35%); compatibility (32%); organizational capabilities (10%), and resources available (46%) of the published articles. The study results indicate that technological factors variables frequencies were less than fifty percent with perceived benefits the highest frequency and organizational capabilities the least frequency of published articles related to smart technology adoption for traceability of raw materials in the retail industry from 2013-2019.

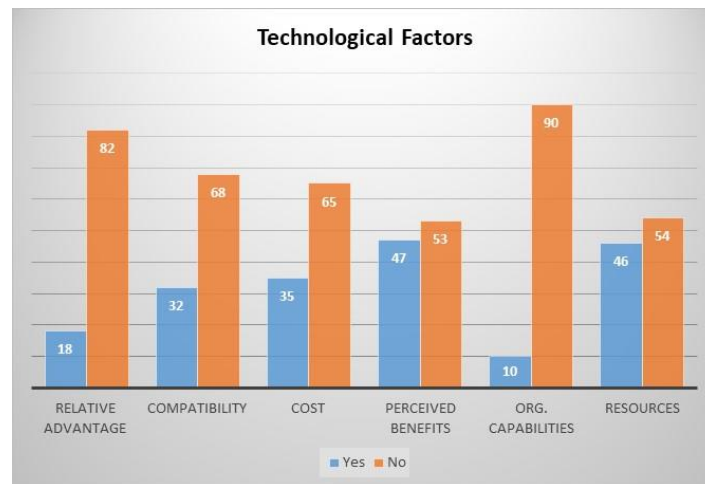


Figure 4: Technological Factors

Organizational Factors

This sub-section presents the frequencies of organizational factors variables that affect the adoption of smart technology for traceability of raw materials in the retail industry published from 2013 - 2019. The show that firm size had (32%), top management support (55%), organizational readiness (35%), organizational performance (15%), organizational structure (45%), and supply chain strategy (24%). of the published articles. The study results indicate top management support organizational factor variable the highest frequency and organizational performance variable the least frequency of published articles related to smart technology adoption for traceability of raw materials in the retail industry from 2013-2019.

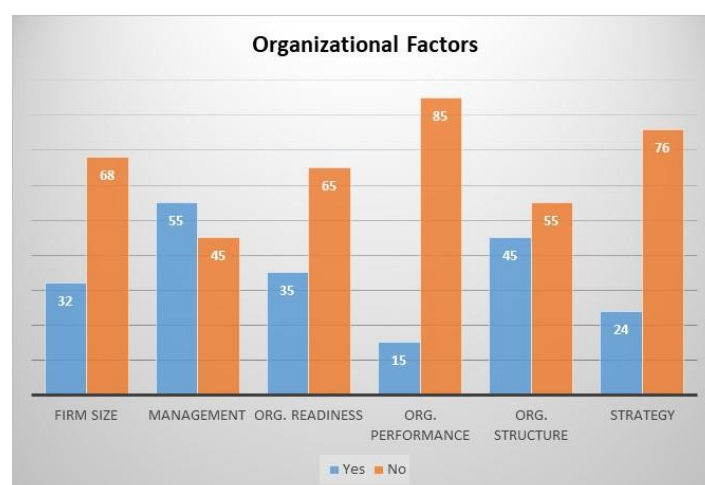


Figure 5: Organizational Factors

Environmental Factors

This sub-section presents the frequencies of environmental factors variables that affect the adoption of smart technology for traceability of raw materials in the retail industry published from 2013 - 2019. The show that competition had (44%), environmental uncertainty (45%), government regulation (41%), industry sector (32%), and supply chain partners (24%) of the published articles. The study results indicate that environmental uncertainty environmental factor variables had the highest frequency and supply chain partners the least frequency of published articles related to smart technology adoption for traceability of raw materials in the retail industry from 2013-2019.

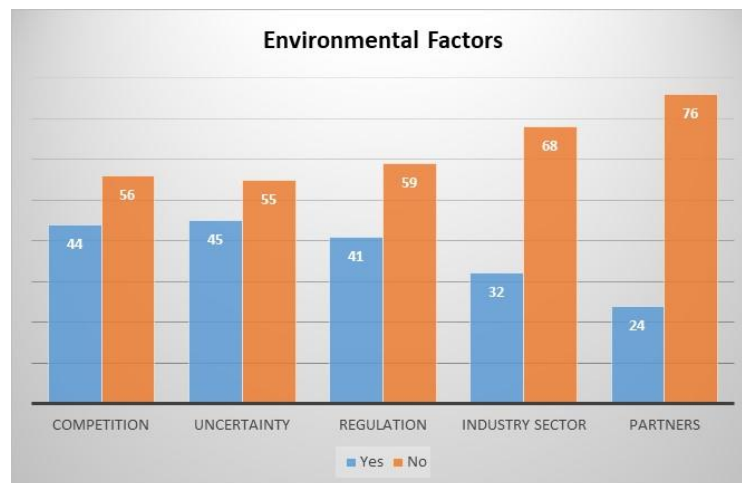


Figure 6: Environmental factors

Discussion and conclusion

The study explored factors affecting the adoption of emerging technologies for raw material traceability in the retail industry using content analysis. From the demographic data perspective, the study results indicate there was a gradual increase in articles related to smart technology adoption for traceability of raw materials in the retail industry from 2013 - 2019. The study results show that Asia had the highest published articles related to smart technology adoption for traceability of raw materials in the retail industry. Besides, the study results indicate quantitative was the most used research method on published articles related to smart technology adoption for traceability of raw materials in the retail industry.

From the TOE Framework constructs, the study results indicate that technological factors variables frequencies were less than fifty percent with perceived benefits had the highest frequency and organizational capabilities had the least frequency of published articles. The study results indicate top management support the organizational factor variable with the highest frequency and the organizational performance variable had the least frequency of published articles. The study results indicate that environmental uncertainty environmental factor variables had the highest frequency and supply chain partners had the least frequency of published articles.

In conclusion, the study achieved its objective of exploring the factors that affect the adoption of smart technologies for raw material traceability in the retail industry. The study contributes to the body of knowledge on factors that affect the adoption of emerging technologies for raw material traceability in the retail industry. Despite the highlighted contribution, the study had also limitations worth mentioning. The convenience sampling adopted by the study makes it difficult to generalize the results. However, the limitation, provide an opportunity for further research on factors that affect the adoption of smart technologies for raw material traceability in the retail industry.

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Factors Affecting the Adoption of Smart Waste Management

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Abstract

In recent years, there has been minimal research on the adoption of smart waste management in organizations. The study objective, therefore, is to explore factors affecting the adoption of smart waste management in organizations. The study adopted a systematic review based on quantitative content analysis to explore factors affecting the adoption of smart waste management in organizations using the TOE (Technological, Organizational, and Environmental) Framework as a theoretical lens. The quantitative content analysis helped examine literature using qualitative data quantitatively using a statistical package. The study results indicate the technological factors affect smart waste management more in organizations than organizational and environmental factors. The study contributes to the body of knowledge of factors affecting the adoption of smart waste in an organization.

Keywords: technological factors, organizational factors, environmental factors, TOE framework, smart waste management, Internet of Things, NFC

Introduction

Comprehensive organizations globally have increased the adoption of smart waste management as a means of improving waste collection processes (Mavropoulos, 2017). Environmental challenges faced by local and national municipalities have also led to an acceleration in the development of smart waste management. The study on smart waste management has gained momentum in recent years due to the influence that technology has over industries as we are heading towards the fourth industrial revolution (Zygiaris, 2013). The introduction of sensors and automation is anticipated to revolutionize waste collection and recycling, to direct and allow this influence, development, and investment in big data and artificial intelligence is necessary (Mavropoulos, 2017).

Although technology has been a leading factor in the direction of smart waste management, more focus is now on other factors such as organizational factors and environmental factors (Zygiaris, 2013). The study objective, therefore, is to explore

factors affecting the adoption of smart waste management in organizations. The structure of the paper is as follows: section 2 provides a detailed literature review on smart waste management organizations. Section 3 focuses on the research methodology used for the study. Section 4 presents the study results. Finally, chapter 5 provides a discussion and the conclusion of the study.

Literature Review

A smart university is understood as a certain intellectual ability that addresses several innovative socio-technical and socio-economic aspects of growth (Zygiaris, 2013). Marsal et al. (2014) stated that smart organization initiatives try to improve urban performance by using data, information, and information technologies (IT) to provide efficient services to residencies and optimize existing infrastructure, to increase collaboration among different economic actors, and to encourage innovative business models in both the private and public sectors. Furthermore, Lombardi et al., (2012) evaluate smart organization as ambitiousness of Carbon Dioxide (CO₂) emission reduction strategy, efficient use of electricity, efficient use of water, area in green space, greenhouse gas emission, intensity of energy consumption, policies to contain urban sprawl, the proportion of recycled waste.

Smart Waste Management.

Smart waste management entails all the activities and actions essential to managing waste from its inception to its final disposal (United Nations, 1997). This process includes the collection, transportation, treatment, and removal of waste alongside monitoring and regulating the process. Waste collection procedures vary widely among various countries and provinces. Zygiaris, (2013) note that smart technologies have the foremost effect on the collection, processing, energy recovery, and dumping stages of traditional waste management. Therefore, the implementation of technology improves the collection process of waste in the organization. The adoption of smart technologies will improve efficiencies in waste management. Some of the technologies that can improve waste collection and management are The Internet of Things, Near Field Communication, Big Data, and Cloud Computing.

Internet of Things (IoT)

The Internet of Things (IoT) has a promising potential application in the domain of smart organizations (Nagalingeswari & Satamraju, 2017). Patel, (2016) defines the Internet of Things (IoT) as the general idea of things, especially everyday objects that are understandable, identifiable, locatable, addressable through information sensing device and/or controllable via the Internet, irrespective of the communication means (whether via RFID, wireless LAN, wide area networks, or other means). The Internet of Things (IoT) can provide valuable service in organizations in smart waste management.

Near Field Communications (NFC)

NFC is a new type of technology that allows the collaboration of devices to send and receive information without physical contact in a similar manner as the Internet of Things. The Central Bank of Jordan, (2015), note that NFC technology facilitates a

simple and safe two-way communication between electronic devices, allowing users to implement contactless transactions, gain access to digital content, and connect electronic devices with a single touch. The implementation of NFC in waste management can ease the actual waste collection process in organizations. The collection process can use big data to make the process efficient.

Big Data

Khan, Uddin, Gupta & Seven (2014) defined Big Data as a large set of data that is much unstructured and disorganized (Khan, Uddin, Gupta & Seven, 2014). The main strength of the big data concept is the influence it has on numerous aspects of a smart organization and consequently on people's lives. One tool that can assist in recognizing areas of potential improvement and making informed decisions is data analytics. Data analytics involves the collection and analysis of data to better identify inefficiencies and decision-making (Celaj, Desmond, Shah, & Shirai, 2017). Therefore, the use of big data plays an important role in smart waste management in organizations as collected data is analyzed into information useful for strategic decisions.

Cloud Computing

Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction (Jadeja & Modi, 2012). Hans, Bahli, Heier & Schewski, (2013) add that cloud computing makes it easier for firms or individual business functions to establish new services without managing or owning computer resources. Cloud computing links platforms together and allows them to work as a union as it offers online servers as a service. Cloud computing works well with big data that also link with the Internet of Things to reach smart waste management.

Theoretical Framework

This study adopted the TOE Framework as a lens of understanding the technology-organization-environment (TOE) framework (Tornatzky and Fleischer, 1990). The framework utilizes elements that influence technological adaptation in the environmental context and the organizational context. Baker (2011) suggests that successful adoption is not just a function of appropriate technology, but also technological, organizational, and environmental contexts of the organization.

Technology Context

The technological context includes both internal and external technologies that are relevant to the organization, technologies that are already in use at the organization as well as those that are available in the industry but not currently in use (Baker, 2011). This includes current practices and equipment internal to the firm (Tornatzky and Fleischer, 1990), as well as the set of available technologies external to the firm. Technology is the backbone of smart waste management and the adoption of technology improves efficiency.

Organization Context

Baker, (2011) said, "The organization context characteristics and resources of a firm include linking structures between employees, internal organizational communication processes, organizational size, and the number of slack resources". In many cases, the organizational context includes management structure and the extent of centralization. For an organization to remain competitive, it must have an innovative structure to implement smart waste management.

Environment Context

The environmental context is the arena surrounding the organization, which consists of multiple stakeholders such as the industry members, competitors, suppliers, customers, the government, the community (Angeles, 2014). The stakeholders can influence how a firm interprets the need for innovation, its ability to acquire the resources for pursuing innovation, and its capability for actually deploying it. In many instances, the introduction of technological innovation is highly dependent on the influence that the stakeholders have over the environment. Angeles, (2014) further states that government regulations are also another influential factor affecting the adoption of technologies in organizations.

Research Methodology

Research design describes the method followed for conducting the research, which includes the when from whom, and conditions for data collection (Vosloo, 2014). The researcher adds that a research design provides an outline of the research, as well as how the researcher goes about attaining the research objectives. It is therefore important to have a design before one collects and analyses data. The study adopted a content analysis to collect and analyze peer-reviewed published articles. Content analysis is a systematic and objective research method for describing and quantifying a phenomenon based on concepts (Schreier, 2012; Jokonya, 2015). The research design is suitable for the study because it provides a structured method for quantifying the contents of the qualitative text in a simpler approach. The unit analysis type for the study is the organization. The primary question seeks to identify factors that affect the adoption of technologies in waste management using the TOE framework.

Data Sources and Sampling

The study adopted convenient or opportunity sampling to explore factors affecting smart waste adoption in organizations. Etikan, Musa, and Alkassim (2015) defined convenience sampling as a type of non-probability or non-random sampling where members of the target population that meet certain practical criteria, such as easy accessibility, geographical proximity, availability at a given time, or the willingness to participate are included for the study. The sampling method was most suitable for the study because it allows the researcher to search and use what is available and convenient. Data sourcing involved searching and manipulating scientific databases using relevant keywords on the factors that affect the adoption of smart waste management. The following keywords were used: Smart waste, smart universities TOE framework, Internet of Things (IoT), Cloud computing, Big data, Near Field

Communications. The selected articles were peer-reviewed and published from 2015 - 2018.

Research methods

There are two main research methods namely qualitative and quantitative research methods. The study used the quantitative method to explore factors affecting the adoption of smart waste management. Quantitative research, according to Van der Merwe (1996), is a research approach aimed at testing theories, determining facts, demonstrating relationships between variables, and predicting outcomes. The study used content analysis to analyze qualitative data (text) quantitatively and presented the results in the form of graphs, charts, and frequencies.

Data analysis

In a review of the literature is important for the researcher to explain the process, different opinions on the use of concepts, procedures, and interpretation of the content analysis (Bengtsson, 2016). The analysis involved identifying themes and variables that were most common in the published articles. The analysis was guided by predefined groups and coding procedures as part of transforming qualitative data into quantitative data. According to Jokonya (2015), the transformation of qualitative text to quantitative data is important to generate quantitative statistics with the use of the PSPP statistical package. The statistical package helped to present a better view of the information on factors affecting the adoption of smart waste management.

Study Results

This section presents and discusses the results of the study on smart waste management. The data collected helped to answer the main research question and achieved the research objectives. The study collected data from articles published between 2013 and 2018 on the adoption of smart waste management at universities. The objective of this research was to investigate the factors that are affecting the adaptation of smart waste management for universities. The study objectives were to explore factors that affect the adoption of smart waste management in organizations. The structure of the section is as follows: the first section presents the demographic results and the second section discusses the TOE framework constructs results.

Demographic Data

The demographic data section provides the results collected from articles dating from the year 2013 - 2018. The section presents demographic results on the year of publication, region, and the research method used in the articles. The data was analyzed from articles collected from different databases.

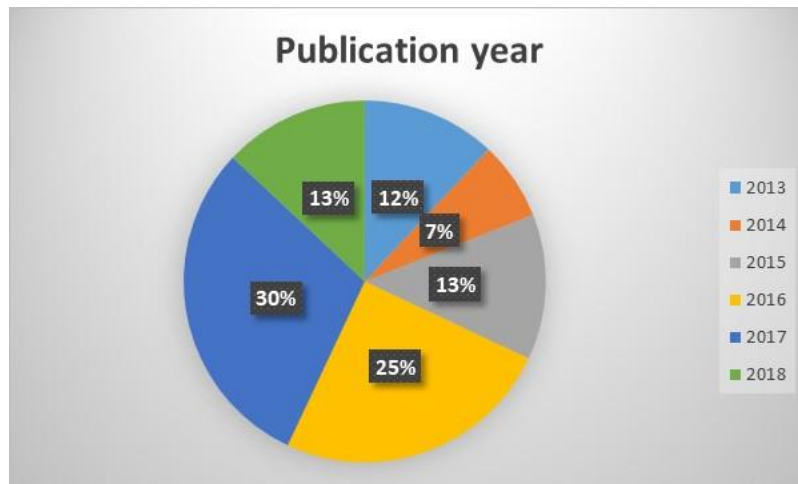


Figure 1: Article by Year.

Figure 1 above presents the frequencies of the published year of articles from the 40 articles published between the years 2013 to 2018 respectively. By far the most frequent year of publication was 2017 with (30%), followed by 2016 (25%), 2015 (13%), and the year 2014 having the least at (7%). The research suggests that there was an increase in the output of research on smart waste management. When comparing the two years we see a huge increase of 27% in 2017 from the year 2013 as our base year.

Article Distribution by Region.

Figure 2 below presents the results of published articles by region on smart waste management from the articles published between the years 2013 to 2018 respectively. South America had the lowest percentage of published articles at only (3%). Europe had the highest number of published articles at 42%, followed by Asia at (32%), then Africa (13%), finally North America at (10%). The study results suggest the there was more research studies in Europe on smart waste management than in other regions.

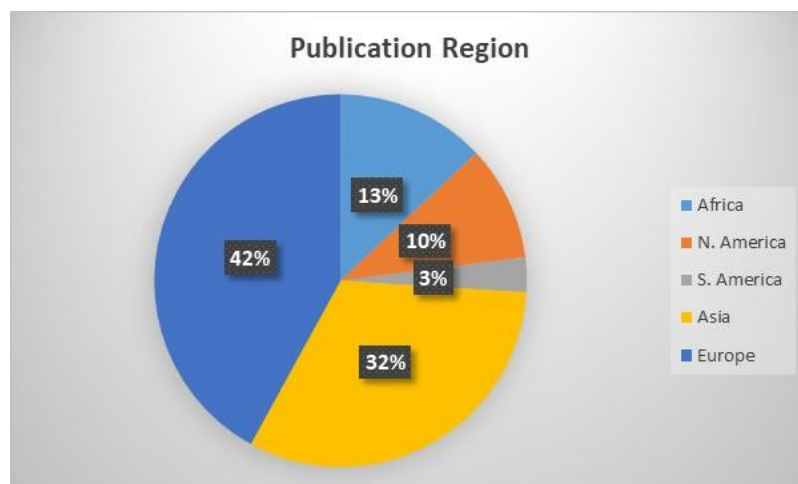


Figure 2: Article by Region

Research Methods

The results below show the research method used for research articles published on smart waste management from 2013 - 2018. The results show that majority of the published articles used qualitative research at (72%) followed by mixed-methods

(20%) and finally quantitative (8%). The study results suggest that the most popular research method was qualitative research.

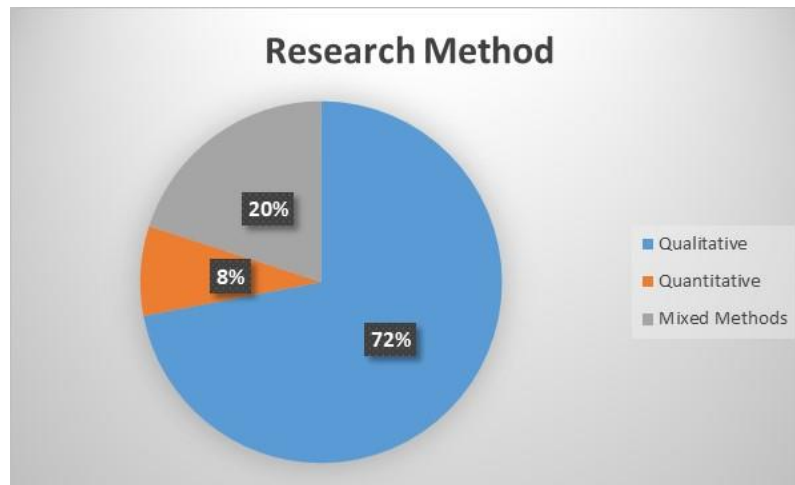


Figure 3: Research Methods

TOE Framework Results

The sub-sections be presents results on the TOE framework constructs (technological, organizational and environmental) factors variables affecting smart waste management adoption in organizations.

Technological Factors

The figure below shows technological factors affecting the adoption of smart waste management in organizations. The results show that all technological factors security (75%), access (93%), support (92%), and standards (57%) had high frequencies. The results suggest these technological factors affect the adoption of smart waste management in organizations.

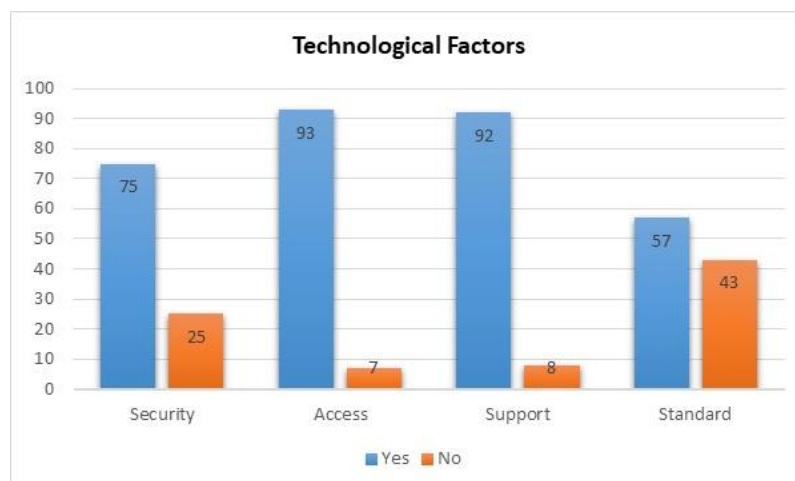


Figure 4: Technological Factors

Organizational Factors

The figure below shows organizational factors affecting the adoption of smart waste management in organizations. The results show that organizational factors management (87%), HR skills (60%), and resources (57%) had high frequencies. The

results suggest these organizational factors affect the adoption of smart waste management in organizations. The other organizational factors such as firm size (38%), centralization (38%), and formalization (20%) had lower frequencies, which suggest that they are not factors in smart waste adoption based on the articles published from 2013-2018.

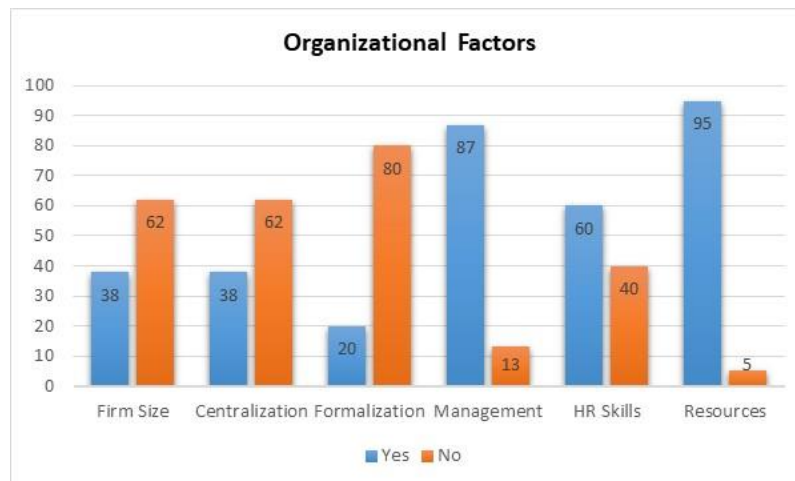


Figure 5: Organisational Factors

Environmental Factors

The figure below shows the environmental factors affecting the adoption of smart waste management in organizations. The results show that environmental factors such as community (87%), customers (62%), stakeholders (82%), and regulations (82%) had high frequencies. The results suggest these environmental factors affect the adoption of smart waste management in organizations. The other environmental factors such as suppliers (40%), and competitors (33%) had lower frequencies, which suggest that they are not popular factors in smart waste adoption based on the articles published from 2013-2018.

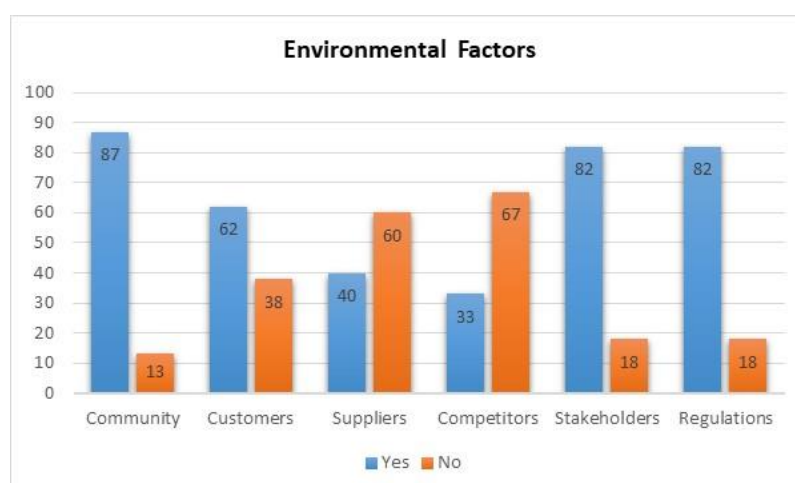


Figure 6: Environmental Factors

Discussion and Conclusion

The study explored factors affecting the adoption of smart waste management in organizations. The study results suggest that there was an increase in research output on factors affecting the adoption of smart waste management in organizations. Shaalan, (2017) supports the results stating that the effect of ICT has caused increased pressure on traditional infrastructures; hence, many organizations are embarking on smart waste management. Besides, the study shows that Europe had most research on the adoption of smart waste management in organizations and South America had the least. The study also showed that qualitative research was the most dominant research method applied in most studies.

The results showed that all technological factors security, access, support, and standards had high frequencies, which suggest that these technological factors important in the adoption of smart waste management in organizations. Literature supports that security has a great influence on technological factors. Shaalan, (2017) highlighted that security precautions and privacy concerns can work as an incentive and can increase trust in the dependability of the information shared.

The study results indicate that technological factors management, HR skills, and resources are important factors that affect the adoption of smart waste management in organizations compared to firm size, centralization, and formalization based on the articles published from 2013-2018. The results show that environmental factors community, customers, stakeholders, and regulations affect the adoption of smart waste management in organizations than suppliers, and competitors based on the articles published from 2013-2018.

In a conclusion, the study suggests that technological factors affect more important in the adoption of smart waste in organizations compared to organizational and environmental factors based on the articles published from 2013-2018. The study contributes to the body of knowledge of factors affecting the adoption of smart waste in organizations. Despite the contribution, the study has some limitations worth mentioning. The study was based on convenience sampling which makes it difficult to generalize the results. However, the limitation is an opportunity for further research in smart waste management using other research strategies and methods. Therefore, the study can act as a stimulus for further research in smart waste management.

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